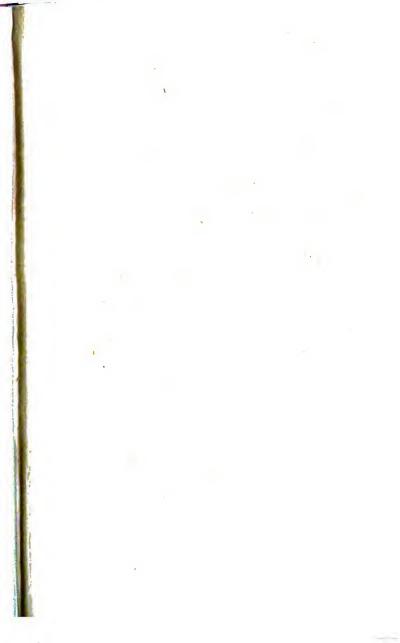


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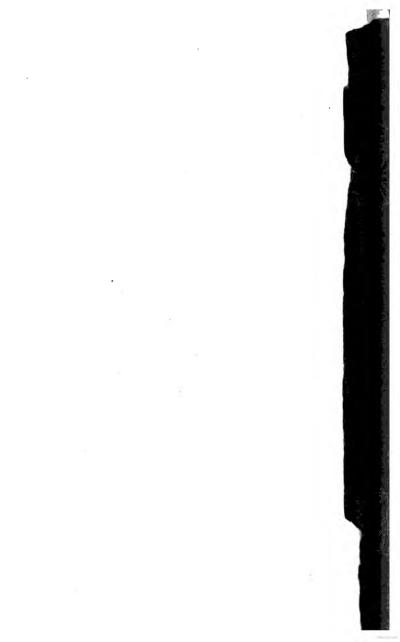


E. g. Stillman

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THE EXHIBITION

OF THE

EMPIRE OF JAPAN

OFFICIAL CATALOGUE



INTERNATIONAL EXPOSITION ST. LOUIS, 1904 GIFT OF
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The Imperial Ordinance for the Organization of the Imperial Japanese Commission to the Louisiana Purchase Exposition.

(Issued July 10, 1903.)

ARTICLE I. The Imperial Commission to the Louisiana Purchase Exposition shall be under the supervision of the Minister of State for Agriculture and Commerce, and shall deal with all the matters relating to the participation of the Japanese Empire in the Louisiana Purchase Exposition, to be held at the City of St. Louis, in the State of Missouri, the United States of America, in the year 1904.

ARTICLE II. The Imperial Commission shall consist of the following officials:

President.
Vice-President.
Commissioner-General.
Commissioners.
Jurors of Fine Arts.
Clerks.

ARTICLE III. The Minister of State for Agriculture and Commerce shall be ex-officio the President of the Imperial Commission.

The President of the Imperial Commission shall enjoy the privilege due to his position as the Minister of Agriculture and Commerce.

The Vice-President, Commissioner-General, Commissioners and Jurors of Fine Arts shall be appointed from among officials or persons of special erudition or experience.

The Vice-President and Commissioner-General shall enjoy the prerogative corresponding to that of the official of the Cbokunin rank; Commissioners and Jurors of Fine Arts shall enjoy the prerogative corresponding to that of the official of the Sonin rank; Commissioners or Jurors of Fine Arts who belong to the Cbokunin rank, or are treated as Chokunin officials, shall enjoy the privilege corresponding to that of the Cbokunin official.

The Clerks shall be appointed from among the officials of the *Hannin* rank or persons who hold no official position.

The Clerks shall enjoy the privilege corresponding to that of the official of the *Hannin* rank.

ARTICLE IV. The Imperial Commission shall have the authority of electing Counsellor or Counsellors from among persons of special erudition or experience in order to carry on special investigations, if necessary.

ARTICLE V. The Cabinet of Ministers shall, by the recommendation of the Minister of Agriculture and Commerce, appoint the Vice-President, Commissioner-General, Commissioners, Jurors of Fine Arts and Counsellors of the said Commission.

The President shall appoint the Clerks of the said Commission.

ARTICLE VI. The President shall supervise the officials of the said Commission and all the matters relating to the same.

ARTICLE VII. The President shall, as he sees fit, issue various regulations and address orders or instructions to local governors in regard to the Exposition.

ARTICLE VIII. The Vice-President shall assist the President, and, in case of necessity, assume the function of the President, pro tempore.

ARTICLE IX. The Commissioner-General shall execute his duty in accord with the direction of the President or Vice-President.

ARTICLE X. The Commissioners shall execute their respective duties in conformance with the direction of the President, Vice-President or Commissioner-General.

ARTICLE XI. The Jurors of Fine Arts shall execute their respective duties in connection with the examination of art exhibits in accord with the direction of the President, Vice-President or Commissioner-General.

ARTICLE XII. The Clerks shall execute their respective duties according to the instructions of their superiors.

Officials of the Imperial Japanese Commission.

BARON KEIGO KIYOURA, Minister of State for
Agriculture and Commerce, First Grade of the
Third Rank of Honor, Second Order of Merit, PRESIDENT.
BARON MASANAWO MATSUDAIRA, Member of
the House of Peers, First Grade of the Third
Rank of Honor, First Order of Merit VICE-PRESIDENT.
SEIICHI TEGIMA, President of the Tokyo Higher
Technological School, Second Grade of the
Fourth Rank of Honor, Third Order of Merit . COM. GENERAL.
HAJIME OTA, Counsellor of the Department of Agri-
culture and Commerce, Second Grade of the Fifth
Rank of Honor, Sixth Order of Merit COMMISSIONER.
MASAHARU ISOBE, Secretary of the Department of
Agriculture and Commerce, Second Grade of the
Fifth Rank of Honor, Sixth Order of Merit COMMISSIONER.
HARUKI YAMAWAKI, Secretary of the Department
of Agriculture and Commerce, Second Grade
of the Sixth Rank of Honor, Sixth Order of
Merit
YEITARO OKAMOTO, Secretary of the Department
of Agriculture and Commerce, Second Grade of
the Sixth Rank of Honor
MINORU OKA, Counsellor of the Department of Agri-
culture and Commerce, Second Grade of the
Sixth Rank of Honor
MASANAWO HANIHARA, Third Secretary of the
Japanese Legation at Washington, D. C., First
Grade of Seventh Rank of Honor, Sixth Order
of Merit
HIROMICHI SHUGYO, Technical Expert of the
Local Government of Hiroshima-ken, First Grade
of the Seventh Rank of Honor, Sixth Order of
Merit
USHITARO BEPPU, Judge of the Bureau of Patents,
First Grade of the Seventh Rank of Honor COMMISSIONER.
NAWOZO KANZAĶI
Attachés.
CHIKAWA YIIKIWO Second Grade of the Seventh Rank of House

v

Superintendent of the Imperial Household Garden.
NIWA KEISUKE, Ex-Member of the House of Representatives.

PREFACE.

In presenting to the public the official catalogue of the Japanese Exhibits at the Louisiana Purchase Exposition, the Japanese Commission takes the pleasure of stating that the catalogue has been intended to give not merely an actual enumeration of the articles on exhibition, but also to set forth a somewhat comprehensive idea of the existing conditions of the Japanese Empire, with special reference to her commerce and industry. The Commission, as well as the Department of Agriculture and Commerce, shall deem it a privilege to respond to any inquiry from foreigners about the products and manufactures, and the general economic conditions, of Japan, which they are anxious to introduce more fully to foreign traders and peoples in general.

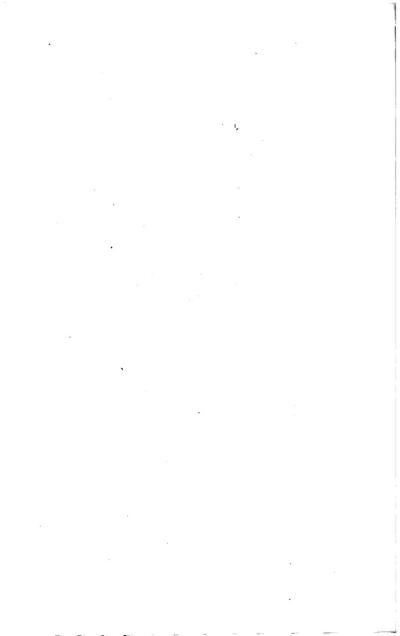


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FOREWORD

FOREWORD.

EGINNING with the International Exposition, held at Vienna in 1873, and including the Louisiana Purchase Exposition, now open at St. Louis, Japan has already participated in twentyseven World's Fairs. Her participation in the present Exposition at St. Louis is more memorable in more than one respect than what she did at any preceding Exposition. In the first place, she has never before occupied such an extensive area of space for her exhibits as she does at the present occasion. It is twice and three times as large as that occupied by Japan at the Chicago World's Fair of 1803, and that at the Paris Exposition of 1900, respectively. And in each department, where Japan takes any part at the present Fair, her location is almost ideal. Secondly, the remarkable industrial progress of Japan in recent years, coupled with an increasingly wider dissemination of technical knowledge and a greater completion of educational institutions, has brought about a significant advancement in the quality and volume of our products and manufactures-a fact which has been fully proved by the extensive, varied and superior nature of our exhibits at the present Fair. The enthusiasm of manufacturers and traders in their desire of participating in the Exposition has been so intense that in spite of the determined effort of the Government to discriminate between numerous applicants, the quantity of exhibits has been swelled to such an extent that, extensive as was the space allowed Japan, it has been a matter of no small difficulty to find places for all the articles sent in for exhibi-In the third place, notwithstanding the fact that since the Govcrument decided to present a national exhibit, there was only a short period of nine months until the opening of the Fair, and that in the course of that comparatively short period the rupture of friendly relations between Russia and Japan greatly handicapped our endeavor concerning the Exposition, the officials in charge and exhibitors worked in unison, pursuing their pre-conceived plan without a slight interruption. In view of such disadvantages which we had to combat, the promptness and accuracy with which articles after articles were brought in to their destination, and arranged and displayed seasonably in proper form, might well be regarded as remarkable. The result was that by the time the gates of the great Fair were thrown open to the public our displays had been well-nigh completed, to the gratification of the Exposition Company and the American people at large.

These, indeed, are a few of many important features attendant upon the participation of Japan in the Louisiana Purchase Exposition.

Owing to the fact that when Japan was first invited to take part in the present Exposition she was busily engaged in preparing for the Fifth National Exhibition held in the city of Osaka in the last year, she had to reluctantly decline to accept the invitation. As the inauguration of the Louisiana Purchase Exposition was thereafter postponed a year, fixing its date at the first day of May, 1004. Japan was enabled to accept the invitation. Early in the year 1903 our Imperial Government sent a corps of officials to St. Louis for the purpose of selecting a suitable location for our Government buildings, and for applying for necessary spaces in various departments of the Exposition. Due to the seasonable and prompt attention of our Government, as well as the courtesy of the managers of the Exposition, every desired arrangement was accomplished without the slightest difficulty. Then a bill for appropriating a sum of \$400,000, to be expended for the Exposition, was passed by both Houses of the Legislature, and in July, 1003, the Government formally notified the Exposition Company at St. Louis that Japan would be represented at the Fair, commencing at the same time to prepare for the memorable event.

The Japanese Commission for the Exposition has taken great care not to accept for exhibition those articles which have mere virtue of novelty, without much practical value, or such articles as can not be produced in a large volume. The idea of the Government in employing such discrimination was to so plan our exhibition that it will leave some lasting effects after the Exposition upon the world's trade and commerce. The exhibition of matters relating to education was executed under the direct supervision of the Department of Education, and was so planned as to make it represent a complete system of education now in vogue in Japan. In regard to exhibitions concerning mines, fish, forestry, agriculture, and garden arts, the Department of Agriculture and Commerce maintained the authority of deciding who should be allowed to make exhibition, or what articles should be accepted. The arrangement of articles exhibited in various departments of the Exposition was made in this wise-namely, those independent of the Japan Exhibits Association were arranged by individual exhibitors under the supervision of the Japanese Commission, while others were set out in proper order by the said Association.

There is no department or palace in which Japan's exhibition is not found. Displays on an especially elaborate scale, however, can be found in the following eleven palaces—namely, Palaces of Education and Social Economy, Fine Arts, Liberal Arts, Manufactures, Varied Industries, Transportation, Mines, Forestry, Fish and Game, Electricity and Agriculture. The total area of space of the Japanese sections in these departments is approximately estimated at 129,457 square feet, which is distributed among different sections as follows:

à .	Sq. Ft.
In the Palace of Education	. 6,299
In the Palace of Fine Arts	. 6,825
In the Palace of Liberal Arts	. 400
In the Palace of Industry	. 27,384
In the Palace of Manufactures	54-737
In the Palace of Transportation	. 14.160
In the Palace of Electricity	. 1,100
In the Palace of Mines	. 6,903
In the Palace of Forestry, Fish and Game	. 2,982
In the Palace of Agriculture	. 8,667
Total	120.457

Besides the above areas in the various departments, a splendid garden of a genuine Japanese style covers an extensive space of ground in which stand the Government building, and attached to it a reception hall and several other artistic mansions. Superb displays of Japanese garden and floricultural arts can be seen in this garden. In the reception hall just mentioned there are exhibited various data showing the growth and present status of the Red Cross Society of Japan. Altogether the dimension of space taken by Japan aggregates 148,361 square feet in an approximate estimation.

Inasmuch as the unique nature of the Japanese garden may well be considered one of the attractive features of the Fair, it may not be out of place to describe it briefly:

Spreading over an area of some 15,000 square feet, occupying a superb location on an eminence, the garden is situated a short distance south of the Palace of Machinery and the motor house, and near the Ferris Wheel in the west. With a grove of evergreens adjoining the east and south sides, and bordering on a broad thoroughfare at the front, the situation of the garden is almost ideal. Artistically scattered within the precinct of the garden are the Reception Hall, the office building, the Formosa Tea Honse, the Kinkaku Tea House, and several cottages and a bazaar. Hills and waterfalls, ponds and bridges, all presented in miniature scales exquisitely tasteful, and the verdant lawns studded with fascinating flowers of different colors, these are all harmonized into an artistic unit in unique landscape gardening. Beautifully trained dwarf trees, so old, yet so small, were brought from

Japan for the special purpose of ornamenting the garden. The drooping wistaria and gay peony, the scented lily and blushing maple are all thriving, eager to rival the beauty of each other in the season of their glory.

The building materials for the Reception Hall, the office building and resting cottages have been brought all the way from Japan. The Reception Hall was built entirely by native carpenters, after the style of a Daimyo's Goten (palace of feudal lord) of some six hundred years ago. The architectural style of the building is what is termed Heike, a style prevailing at the time when a military family called the Heike held a paramount power. The artistically curved roofs, projecting one upon another with majestic air, producing symmetry without, at the same time, losing a solid appearance of the structure, are but a modest representation of architectural accomplishment already attained in lapan several centuries ago. Hanging on the inner wall of the Hall is the portrait of Her Majesty, the Empress of Japan, and occupying a section of the room are the exhibits of the Red Cross Society of Japan, in which the Empress takes a keen interest. There are also exhibited human images, showing a series of historical changes in customs and costumes from ancient to modern times.

The resting cottage is constructed with lumber of varied kinds. It was modeled after a cottage in *Shogun's* (military Magistrate's) garden, which was common in the *Tokugawa* period, two or three centuries ago.

Another structure close to the south bank of the lake is a small reproduction of the *Kinkaku* Temple, which was built in Kyoto, the Athens of Japan, by a military ruler of the Ashikaga family five hundred years ago. Close to the right of the front gate of the garden stands the Formosa mansion, a fair representation of characteristic native dwellings.

The Kinkaku Temple was built under the auspices of the Japan Tea Traders' Association, and the Formosa mansion by the initiative of the Formosa Government. In the former building the green Japanese tea will be served, while in the latter the Formosa tea can be had. This arrangement has been made as a means of promoting Japan's tea trade in foreign countries.

ENTRANCE TO THE JAPANESE PAVILION.

PART I

PART I.

PRELIMINARY REMARKS.

CHAPTER 1.

GEOGRAPHICAL FEATURES OF JAPAN.

Situated in the Far Eastern waters of the Pacific and not very distant from the Eastern shores of the Continent of Asia, the Empire of Japan consists of numerous islands, scattered over a wide area of waters, beginning with 119°20' E. L., Greenwich, on the west, and ending with 156°32' E. L., Greenwich, on the east, and spreading between 50°56' N. L., and 21°48' N. L., on the north and south; respectively. The long series of the islands running from north to south forms one continuous chain, making a comparatively narrow breadth from east to west. Hence, the shape of the country is often compared to the figure of a fabulous dragon stretching to its full length with its head erect. Across the Strait of Chishima (the Kuriles), the North Sea (the Sea of Okhotsk), and the Strait of Sova, the Insular Empire looks on the north towards Russian Siberia. coast of the Empire faces Siberia, Korea and China, across the Sea of Japan, the Strait of Korea, the Yellow Sea, and the Strait of Formosa. To the south, separated by the Strait of Boshi, there lie the Philippines. The number of islands constituting the Empire is estimated at about four thousand, of which the largest are Honshu, Hokkaido, Kushu, Formosa and Shikoku. The areas of these principal islands, together with minor islands belonging to each one of them except Shikoku, and of other islands, are respectively as follows:

Honshu and group	14.571	ri.
Hokkaido and group	5,061	ri.
Kushu and group	2.617	ri.
Formosa and group	2,259	ri.
Shikoku	1.180	ri.
Other Islands	1.409	ri.
Total		

As the country is surrounded by waters, its coast line is as long as 9,000 miles—a length greater than that of any other country in the

world. Commensurate to the length of the coast line, the country abounds in excellent ports and harbors. Facing the Pacific Ocean, the southeastern part of the main islands, comprising Hokkaido, Honshu, Shikoku and Kushu, and the groups of minor islands belonging to them, abounds in mesozoic groups of rocks composed of various systems, but is comparatively destitute of eruptic rocks. On the other hand, in the northwestern part of the main islands along the shores of the Sea of Japan, are found more complicated systems of old volcanic and neovolcanic rocks. Along the line of intercourse between these two different groups of sedimentary rocks, mesozoic and eruptic, there are numerous volcanoes, dormant and active. Intersecting the country in almost every direction there are not less than ten mountain ranges, resulting in the most diversified features of topography. As the volcanic mountain range is as abundant as the paleozoic, Japan is most lavishly bestowed with hot springs. Although the country is traversed by such numerous chains of mountain, the area of really uninhabitable mountain regions is comparatively small, as the mountain ranges are not very thick, the main portion of the country being elevated plains, while nearly one-seventh of the whole area forms lower plains. Most of such plains are found in mountain or river valleys or on mountain slopes. The Ishikari valley in Hokkaido and the Kwanto plain are among the most noted of such plains,

Owing to the diversified topographical feature, the streams and rivers of Japan flow in almost every direction—to the Pacific, the Sea of Japan, the Inland Sea of Sedo, and so forth. As the slopes or plains facing the Pacific are the most extensive, the rivers in those regions glide down toward the ocean, giving much facility in transportation. On the opposite side of the country the plain is greatly narrower in breadth; yet it is not entirely destitute of long streams. Of rivers flowing in other directions only a very few can be classified among great rivers.

As to the climate of the Empire the temperature is somewhat lower than that of other countries on the same latitude. Although the warm Black Current washes the southern shores of the country, the eastward movement of the atmosphere from the cold region of Siberia and a cold ocean current flowing in southerly direction from near the shores of the Kuriles furnish a powerful influence to reduce the warmth generated by the Kuroshiwo (Black Current). As the territory of the Empire stretches extensively from south to north, and abounds in mountains, its climate differs according to localities. The average temperature in the island of Formosa is 21° to 25°. Even in warm summer the ther-

mometer in Formosa hardly rises as high as 37°, while in winter it rarely goes below 3°, although high peaks of mountains are frequently decorated with snow. Coming to Kushu and Shikoku, we find that the summer temperature there often reaches to what is considered the highest point in Japan, but in winter the weather is rather mild, the transition from the summer to the winter weather being gradual, but not radical. Along the southern and eastern shores of Honshu, which undergoes the influence of the Black Current, the difference between the warmest and the coldest weather is not very wide. On the contrary, regions bordering on the Sea of Japan, as well as the northeastern part of Honshu, washed by the cold current from the north, are generally colder; while in those central valleys, circumscribed by high mountains, the temperature is still lower. As regards Hokkaido, its shorter distance from Siberia and its situation in the further North assist in maintaining a considerably lower temperature.

The volume of rainfalls in the Empire is generally large. The highest record is found in the southwestern islands, and in districts near the Cape of Ushiwo. In the southeastern part of Formosa, the southern part of Shikoku, the island of Chishima, the northern coast of the middle part of Honshu, the rain gauge records a height next to that in those regions above mentioned. The northern part of the high plains in middle Honshu and the northern coast of Hokkaido are of the lowest record. Generally speaking, the volume of rainfalls is greater in summer than in winter. Except in the southeastern islands, there is hardly a place where there are not snowfalls in a greater or lesser volume. Yet, on account of dry atmosphere in winter, the snowfall is comparatively infrequent and of small volume, except in the district bounded by the Sea of Japan, which sends wet atmosphere landward, resulting in frequent and heavy snowfalls.

CHAPTER II.

Population.

Japanese Races.—The problem of the origin of the Japanese people is a mooted one, which still remains unsolved. It is, however, almost certain that it is the outcome of the admixture of several different races not widely different from each other. What we call the Yamato race, which forms by far the greatest and most important portion of the inhabitants of the Insular Empire, is, in all probability, not of one unmixed blood. Almost the whole portion of the main islands constituting Japan proper is peopled by this race. In Formosa, however, principal inhabitants are Chinese alongside a considerable number of the aborigines. Hokkaido was originally inhabited by the Ainus, whose power was once overwhelming in the northern part of Honshu as well. But their number has been and still is decreasing like the American Indians, and they now occupy a comparatively small portion of Hokkaido.

Total Number of Population.—The population of the Japanese Empire has been steadily increasing. The following table shows the rate of increase of population in Japan proper (not including Formosa) during the six years from 1895 to 1900 inclusive:

Year.	Male.	Female.	Total. An	Per cent of anual Increase.
1895	21,345.750	20,924.870	42,270,620	1.09
1896	21,561,023	21,167.241	42.708,264	1.04
1897	21,823,651	21,405.212	43,228,863	1.22
1898	22,073,896	21.689,257	43,763.153	1.24
1899	22,329,925	21.930,681	44.260.604	1.14
1900	22,608,150	22.197,806	44.805.937	1.23

As a result of the Japan-China war of 1894-95. China ceded to Japan the Island of Formosa, as well as the group of Pescadores, with the following population:

Year.	Total Population,	No. of people from Japan proper.
1897	2.797-543	16,321
1898	2,690,096	25,585
1899	2.758.161	33.120

Density of Population.—According to the census compiled in 1898 the total area of Japan (Formosa excluded) is estimated at 147,655 square miles, the density of population being as follows:

		Population per
Square miles.	Population.	Square miles.
Central Honshii	16,859,296	461
Northern Honshu30,204	6.642,917	220
Western Honshu20,681	9,828.722	475
Shikoku 7,031	3,013,817	429
Hokkaido	610.155	17
Kushu	6,811,246	404
Total 147.655	43.763.153	296

As regards the rates of births, deaths and marriages of Japanese both at home and abroad during the five years from 1896 to 1900 inclusive, the following statistics is given:

Year.	Marriages.	Births.	Deaths.	Excess of Births.
1896	501,777	1,282,178	912,822	369.356
1897	365,207	1,335,125	876,837	458,288
1898	471,298	1,369,622	894,503	475,119
1899	297,428	1,388,185	934.596	455,619
1900	345,158	1,406,624	909,095	497,529

Japanese in Foreign Countries.—The number of Japanese staying abroad at the end of the year 1902 stood at 139,553, of whom 97,404 were in the United States of America and her colonies, 22,471 in Korea, 8,592 in Great Britain and British colonies, and 4,716 in Russia and her colonial territories.

Foreigners in Japan.—The number of foreigners coming to Japan has been steadily increasing since the doors of Japan were first open for the international communication. At the end of the year 1902 foreign residents in Japan were 14,257 in number, which is classified according to nationality, as follows:

Nationality.		Total No
China	 	8,027
England	 	2,215
America	 	1,624
Germany	 	647
France	 	505
Portugal	 	169
Holland	 	75
Russian	 	185
Switzerland	 	107

CHAPTER III.

POLITICAL CONDITIONS.

The Sovereign of Japan.—The foundation of the Empire of Japan goes back to about 660 years before the Christian era. Though not without suffering from internal warfares and factional strifes, the Imperial family of Japan has governed the country in one unbroken line of succession since the first sovereign laid the cornerstone of the Empire in the middle part of Japan. In 1871, shortly after the reigning Emperor ascended the throne, an Imperial ordinance was issued which once for all abolished the feudal regime that had been the source of unceasing internal strife, and caused foreigners to take the Tokugawa family for the real sovereign of Japan. The 11th day of February, 1880, witnessed the promulgation of a Constitution, by which Japan emerged from an absolute monarchy and made a debut on the political stage of the world as a constitutional monarchy. According to the Constitution the Emperor is the head of the country, wherein is vested the supreme power of ruling, as well as governing the country. He exercises the right of legislation with the concurrence of the Imperial Diet, administers the government with the help of his Ministers, and executes the judicial authority through the court organized by his ordinance. Thus, the Emperor maintains the right of issuing the ordinance as he sees fit; of approving or disapproving the law passed by the Legislature; of convoking, closing or proroguing the Imperial Diet, and of dissolving the House of Representatives; and of declaring war, making peace, and concluding treaties, and so forth.

Legislature.—The Legislative organ of the Empire is constituted of two houses, i. c., the House of Peers and the House of Representatives.

The House of Peers consists of the following members:

- 7. Princes of the blood.
- 2. Dukes and Marquises.
- Members elected from among and by Counts, Viscounts, and Barons.
 - 4. Men of distinguished services or of remarkable erudition.
- 5. Members elected from among and by the highest tax-payers, each Ken (Prefecture) or Fu (Metropolitan City) returning one member.

The House of Representatives is composed of 369 members, returned by ninety-seven electorates. It enjoys the rights of originating

and giving consent to the projection of laws; of approving, modifying or disapproving the budgets; of receiving petitions from the people; and of submitting memorials to the Throne and representations to the Government.

Justice.—The tribunal of Japan is divided into four grades, namely, the Supreme Court, the Court of Appeals, the Local Court, and the District Court. The total number of Courts of Appeal is seven, while there are one Local Court and several District Courts in each Fu or Ken. Although amenable to special disciplinary measures, the tenure of judge is held sacred and inviolable and guaranteed by the Constitution. The codes of Japan, criminal and civil, as well as her Commercial Code, were drawn in accordance with the most advanced principles of law yet propounded, and the judiciary authority exercises its power independent of the Executive and the Legislative Departments, and conforming to the detailed provisions of the law without partiality.

Executive.—The Executive organ comprises the following nine departments, i. c., the Departments of Foreign Affairs, Home Affairs, Finance, War, the Navy, Justice, Education, Agriculture and Commerce, and Communications. These nine departments constitute the central administrative organ, with a Minister of State at the head of each department. The power and duty of superintending all of these departments devolve upon Prime Ministers.

Local Administration.—With the exception of Formosa and Hokkaido, where special administrative laws are still in vogue, a uniform system of local administration is applied to all of the three Fu (Metropolitan cities) and forty-three Ken (Prefectures). To be more precise, there is a Governor in each Fu and Ken, which are subdivided into counties (gun) and cities (shi) governed by guncho and mayor respectively, while a county resolves itself into towns(cho) and villages.

Local Self-Government.—In 1888 a system of local self-government was inaugurated, whereby each city, town and village were authorized to look after their own administrative affairs and the welfare of their communities. In each a legislative body is instituted by the mutual election of the people. The executive authority of the city is vested in the City Council, the Mayor acting as its organ. In the town and village the executive power resides in the Cho-Cho (town master) and Son-Cho (village master) respectively, both of whom are elected from among and by the people. Each county has an assembly as its legislative organ and a council as its executive body; while in each Fu and Ken there are a legislative assembly and an executive council. Over

all these self-governing communities the Minister of Home, Affairs exercises a supervising authority with the co-operation of the Governors (Chiji) of Fu and Ken.

Administrative Districts.-For the administrative purposes, the whole country is divided as follows:

	omiti, to divided up tollows;
	No.
1.	Fu (Metropolitan cities) 3
2	Ken (Prefectures)
3.	Gun (Counties)541
4.	Ku (Districts)
5.	Islands
	These comprise Houshu, Shikoke, Kushu, and the
	Ruku (Loochoo) Islands.
6.	
	a. Districts 3
	b. Sub-administrative territories
	These involve Hokkaido and the Chishima Islands
	(the Kuriles).
7.	Formosa Governor-General's administrative territory
	which is subdivided into twenty districts, comprising

Formosa and the Pescadores.

CHAPTER IV.

RELIGION.

In Japan, the absolute freedom of religious belief and practice is constitutionally guaranteed, provided that such belief and practice are not prejudicial to peace and order. The two principal religions of Japan are Shintoism, comprising 12 sects, and Buddhism, which is divided into 13 sects. Confucianism, the doctrine of which was greatly advanced by Mencius, can not properly be termed a religion, as it purposes to teach ethical, but not religious, conceptions of morality; but its hold upon Japanese minds is even today so strong that one can not get at the psychological characteristics of the Japanese people without taking this doctrine into his consideration. In recent years Christianity has made a remarkable progress both as to its influence and the number of its believers. It will, however, require years of perseverance on the part of its devotees before it takes a prominent position in the domain of religion in Japan, owing to the greater influence exercised by the older religions and Confucianism.

The Government assumes impartial attitude towards all these religions. Hence, there exists no system of state religion nor any religion especially favored by the state.

In 1901, there were 84,038 Shinto temples and 1,168 students. Buddhist temples in the same year numbered 71,788; bonze, 11,735, and students, 1,168. There were also 1,389 licensed preachers and 1,055 churches and preaching stations of the Roman Catholic, Greek and Protestant churches.

Shrines dedicated to the eminent ancestors of the Emperor, and to meritorious subjects, are found in a considerable number. They are free from any religious sect, some of them being supported by state or local authorities. At the end of the year 1901 the number of such shrines was 195,256 and that of ritualists attached to these shrines was 16,365.

CHAPTER V.

FINANCIAL CONDITIONS.

Although the finances of Japan were in a deplorable condition before the restoration of the Imperial regime and the abolition of the feudal system, the unswerving effort of the Government has brought about a thoroughgoing adjustment of finances in the course of some thirty years following the Restoration—an accomplishment which might well be regarded as admirable in view of the shortness of the period in which the work was done.

1. National Finances.

The revenue and expenditure for the five fiscal years beginning with the fiscal year 1899-1900 and ending with 1903-04 are presented in the following table, the amounts for the years 1899-1900 and 1900-1901, being actual accounts, and those for 1903-04 estimates:

Year.	Revenue.	Expenditure.
1899-1900	 254,254,524	254,165,538
1900-1901	 295,854.863	292,750,059
1901-1902	 274,359,021	266,856,824
1902-1903	 293,991,663	289,226,626
1903-1904	 251,681,961	244,752,346

The figures for 1901-1902 include a receipt from the Chinese indemnity amounting to 18,232,952 yen (the yen—about fifty cents), and that of 20,862,450 yen raised by loans.

The following table gives a summary of the budget estimates for the year ending March 31, 1904.

Ordinary—	REVENUE,	Yen.
Land tax		46,996,212
Income tax	* * * * * * * * * * * * * * * * * * * *	7.412,801
Business tax		6,792,818
Tax on alcoholi	c beverage	66,535,404
Shoyu tax		3,444,034
Other taxes		10,387,994
Customs duties		16,570,655
Tonnage duties		348,726
Stamp revenue		13,532,121
Tobacco monoj	ooly profits	12,605,012
Posts and teleg	raphs	25,015,010
	rofits	

Ordinary-	REVENUE-Continued.	Yen.
Revenues f	enuerom other State undertakings and properties, nues	1,876,319
Total revenue		251,681,961
Ordinary-	EXPENDITURE.	Yen.
Civil list .		3,000,000
Imperial D	Diet	1,730,704
Foreign aff	fairs	2,284,161
Interior		10,274.776
Finance		8,274,007
Army		38,495,727
Navy		22,077,695
Justice		10,563,532
Education		5,073,502
Agriculture	and Commerce	2,943,949
Communica	ation	21,606,676
Debt charg	es	42,402,101
Annuities a	and pensions	5,875,558
Others		3,861,735
Total ordinary .		178,464,121
Extraordinary ex	penditure	66,288,225
Total expenditur	e	244,752,346

The public debt of Japan for the four years ending 1902 is shown in the following table:

Year.	Amount (yen).
1899	 503,200,649
1900	 526,664,195
1901	 581,321,540
1002	 505 613 525

II. Formosan Finances.

The finances of Formosa, which was ceded to Japan by China by the Shimonoseki treaty of peace of 1895, are set apart as a special account with the object of making the island self-supporting in time.

The revenue and expenditure for the fiscal year 1902 stood as follows (the subsidy from the central treasury in that year being 2,459,763 yen):

	Ordinary.	Extraordinary.	Total.
Revenue	12,650,695	7,205,319	19,856,014
Expenditure	13,245,073	6,610,941	19,856,014

III. Local Finances.

The existing status of the local finances of Japan is shown in the following three tables:

1. TABLE SHOWING THE REVENUE OF FU AND KEN.

Year.	Taxes.	Other Incomes.	Total.
1900	 39,854,280	19,019,408	
1901	 41,147,070	10,554,683	
1902	 41,143,448	10,554,683	

2. TABLE SHOWING THE REVENUE OF CITIES, TOWNS AND VILLAGES.

Year.	Taxes.	Other Incomes.	Total.
1899	38,475,506	34,559,311	
1900	47,067,257	39,576,191	
1901	54.754,017	43,478,134	

3. TABLE SHOWING THE AMOUNT OF LOCAL AND PUBLIC DEBTS.

		Cities, Towns
Year.	Fu and Ken.	and Villages.
1900	 8,672,639	19,585,565
1901	 9,719,983	26,059,938
1902	 10.379,664	30,328,305

CHAPTER VI.

CURRENCY SYSTEM.

Single gold standard theory or principle, promulgated by the Government in 1897, resulted in the inauguration of the existing currency system, which introduced the gold standard for the first time. The following is a summary of the salient points of the present currency system:

- 1. The unit of the coinage shall be 2 "fun" of pure gold (11.574 grains), and shall be one-half the value of the old gold unit.
- 2. The gold coins shall be of three denominations, 5 yen coins, 10 yen coins, and 20 yen coins, and the gold coins issued under the old coinage law shall have double the value of the coins of corresponding denominations issued under the new coinage law.
- 3. Subsidiary silver pieces shall be of three denominations, 10 sen pieces, 20 sen pieces, and 50 sen pieces. The 5 sen silver pieces issued under the old coinage system shall be in circulation as before.
- 4. Subsidiary copper coins shall be three denominations, 5 sen nickel pieces, 1 sen copper pieces and 5 rin copper pieces. The 2 sen pieces, 1 sen pieces, 5 rin pieces and 1 rin pieces which were issued before shall continue in circulation as before.

The circulation of 1 yen silver coins that was used as legal tender to any amount at the rate of 1 yen gold piece was prohibited on April 1, 1898, and its withdrawal from circulation was effected on July 31st of the same year.

The adoption of the gold standard has proved of great benefit to the economic and financial advancement of Japan. One of the most important advantages attendant upon the new monetary system was that it did away with various inconveniences accompanying frequent fluctuations in the price of silver.

In the following table is given the amount of coinage issued from 1890 to 1902, inclusive:

1899.	1900.	1901.	1902.
Gold coins17,345,782	11,687,827	16,957,193	25,349,260
Silver coins 8,745,000	2,630,000	1.076,000	731,000
Nickel coins 533,000	118,000	898,000	126,000
Copper coins 98,000	31,000	46,000	

The Bank of Japan (Nippon Ginko) enjoys the privilege of issuing convertible banknotes on the security of gold or silver coins and bullion not less than the amount of the notes issued, and also of issuing notes on the security of Government bonds and Treasury bills, or other bonds or commercial bills of a reliable nature within the limit of 120,000,000 yen. Those notes issued in excess of the said amount are subject to an annual tax of not less than 5 per cent of the amount of the notes in question.

The amount of convertible banknotes issued in the years 1900 and 1901 was 228,570,032 yen, and 214,096,766 yen respectively.

The aggregate of coinage in circulation in 1901 stood at 306,706,-977, while that in the next year was 326,572,379.

CHAPTER VII.

BANK AND CREDIT.

Although the time has not been very long since Japan ushered in the modern method of commerce and industry, her economic development in this comparatively short period has been so remarkable that the banking system of the Island Empire is now able to cope with that of any other country in its completeness and in convenience it affords. The Bank of Japan, or Nippon Ginko, which is the central bank of the Empire, has proved of invaluable service in effecting a harmonious and stable condition of the financial world; the Specie Bank has furnished many financial facilities for the foreign trade of the country; the Hypothec Bank, or Kwangyo Ginko, under the special patronage and supervision of the Government, has greatly contributed to improvement and development of agriculture and industry, and the Agricultural-Industrial Bank of Japan has furnished many conveniences in similar direction. These banks are carrying on their business under the supervision of the central or the local Government. The Bank of Formosa and the Hokkaido Colonization Bank were established for the purpose of developing the natural resources of Hokkaido respectively.

The following table gives some of the important features of the banks existing at the end of 1903:

Bauks.	Head Office.	Branch Office.	Paid up Capital.	Amounts of Deposits (1901).	Amounts of Loans (1901).
Bank of Japan	I	8	30,000,000	20,157,054	71,348,602
Yokohama Specie Bank	I	13	18,000,000	46,510,846	25,496,825
Hypothec Bank of Japan	1	_	2,500,000		14,048,578
Bank	I	I	2,098,400	219,230	1,455,213
Bank of Formosa	· 1	3	1,250,000	4,549,983	5,702,770
Agricultural - Industrial Bank	46	1	26,050,000	13,421,137	23,086,785
National banks	,867	1,457	257,939,039	450,186,472	356,356,565
Savings Banks	441	542	23,370,017	30,188,630	41,117.027
Total2	-359	2,025	361,207,017	555.233.352	538,612,366

Along with the development of banking system, the organization of clearing houses has made remarkable progress. The following table shows the amount of bills cleared through the clearing houses in various commercial centers:

Year.	Tokyo (yen).	Osaka (yen).	Kyoto (yen).	Yokohoma (yen).	Kobe (yen).
1900	1,405,449,664	523,552,745	167,566,439	348,306,775	168,228,769
1901	1,168,702,078	528,122,082	145,905,182	390,516,606	202,653,853
1902	1,350,791,066	663,659,703	155,957,014	416,126,576	251,656,959
1903	1,399,704,338	739,500,536	150,150,581	445,932,771	366,973,242

CHAPTER VIII.

INSURANCE.

The first insurance institution ever organized in Japan was fire insurance, which was followed by life insurance and marine insurance. Since 1877 there has sprung up like mushrooms an enormous number of insurance companies, not a few of which possess an insufficient fund to carry on their business. Seeing a danger possible in such an unwholesome condition of reckless enterprise, the Government inaugurated a law in 1900 whereby the following provisions have been strictly put in force:

- 1. All insurance companies should be organized either as joint stock companies or as mutual companies.
- 2. No insurance company should be allowed to carry on any other business along with that of insurance.
- Any one and the same company should not carry life insurance alongside other lines of insurance.
- 4. The capital of any one insurance company should not be less than 100,000 yen.

This law has greatly assisted in putting insurance companies on a sound basis, preventing the unwholesome springing of insecure corporations.

The following table gives a few statistical facts concerning the existing condition of insurance companies:

1. Lift	INSURANCE.		
Year. Companies	. Capital. 8,705,000	No. Policies. 787,689	Value of Policies. 197,684,522
1902 (Ibid) 37	8,595,000	668,735	181,651,115
	INSURANCE.		,
	INSURANCE.		
Year. Companies	. Capital.	No. Policies.	Value of Policies.
1901 (ending March 31) 19	15,820,000	241,841	351,206,649
1902 (Ibid) 20	16,700,000	280,070	427,852,438
3. MARI	NE INSURANCE		
No.		No.	Value of
	. Capital.	Policies.	Policies.
1901 (ending March 31) 3	7,500,000		
1902 (Ibid) 3	7,500,000	8,737	17,071,057
. 4. Transport	ration Insur	ANCE.	
No.		No.	Value of
	Capital.		Policies.
1901 4	-		
1902 4	11.200,000	1.280	1.466,833

CHAPTER IX.

SAVINGS SYSTEM.

As a means of encouraging the thrift and diligence of people, Japan instituted savings banks and postal savings institutions throughout the country. Although the idea of laying by savings is not yet widely diffused among the masses of people, it is encouraging to note that the amount of savings has been steadily increasing. Besides regular savings deposits, an enormous sum of funds bearing the nature of savings has been deposited at various banks as ordinary deposits.

The following two tables give some statistical facts concerning the present condition of savings service.

TABLE OF DEPOSITS.

	Bank of	National	Special 5 contracts	
Year.	Japan.	Banks.	Banks.	Total.
1899	4,938,725	470,057,184	1,222,815	476,218,724
1900	2,027,234	505,964,503	7,134,273	515,126,100
1901	2,557,762	514,956,513	8,188,940	525,703.215
1902	3,363,388	616,474,986	12,123,528	631,961,902

TABLE OF SAVINGS DEPOSITS.

	Savings	Postal	
Year.	Banks.	Savings.	Total.
1899	44,748,884	24,014,043	68,762,927
1900	49,458,580	24.733.449	74,192,029
1901	44.021,626	27,971,281	71,992,907
1902	51,646,865	30,455,918	82,102,783

These two tables show the amount of deposits and savings existing at the end of each year, excluding government and municipal deposits.

CHAPTER X.

FOREIGN TRADE.

I. Japan Proper.

The foreign trade of Japan is carried on exclusively through the open ports of Yokohama, Kobe, Osaka, Nagasaki, Hakodate, and 20 special export ports. The aggregate value of the foreign commerce of Japan from 1898 to 1902, inclusive, is estimated as follows:

	1898.	1899.	1900.	1901.	1902.
	Yen.	Yen.	Yen.	Yen.	Yen.
Imports	324.704,483	229,014,695	313.329.329	282,189,094	290,809,575
Exports	. 168,213,070	218,350,957	209.551,852	263,345,112	267,855,021

The commercial intercourse of Japan was mainly with the following countries, and to the following values in the years 1901 and 1902:

	Imports from		Exports to	
	1901.	1902.	1901.	1902.
Countries.	Yen.	Yen.	Yen.	Yen.
Australia	1,777,599	1,672,218	2,533,357	3,172,092
Austria	4,938,198	2,376,656	1,386,964	1,143,310
Belgium	5,810,897	6,977,656	519.327	600,497
British America	181.785	517,274	3,276,114	3,485,841
British India	42,779,905	49,302,846	9,657,596	5,067,263
Straits Settlement		1,674,323		8,269,633
China	27,256,986	40,590,858	42,925,579	46,838,545
France	3,752,828	4.745.776	27,275,671	27.283,458
French India	4,082,897	5.649,946	148,470	158,411
Germany		25.812,921	5,251,071	4.737,029
Great Britain	50,575,789	50,364,029	11,482,504	17,346,149
Holland	408,244	772,666	344,025	745,249
Hong Kong	11,141,788	2,454,881	41,786,647	25,876,059
Italy	154,382	186,813	12,569,485	13,287,556
Korea	10,052,438	7,957,946	11,372,551	10,554,183
Philippines	2,981,031	1,493,865	2,580,682	1,731,739
Russia	210,276	103,114	852,315	968,937
Russian Asia	4,515,165	5,963,858	2,290,447	2,144,961
Siam	1,195,082	1,695,780	32,002	56,347
Switzerland	2,208,574	1,951,047	150,284	755,916
U. S. A	42,769,430	48,652,825	72,300,359	80,232,805

The following table shows the chief articles of import, re-imports excluded, for 1901 and 1902:

	1901.	19 0 2.
Articles.	Yen.	Yen.
Rice	11,878,958	17.750,811
Flour	2,873,302	3,278,324
Pulse, etc	5,328,136	5,786,707
Sugar	33.529,803	14,489,235
Wines, food, etc	7,087,786	9,018,441
Tobacco	121,091	995.976
Wool and manufacture	11,848,458	14,304,534
Cotton and seed	60,650,362	79.784.771
Cotton manufacture	14,144,588	17,164,817
Cocoons and raw silk, manufacture of	1,542,772	2,456,978
Flax, hemp and jute manufacture	1,665,693	2,102,937
Other tissues and manufacture	844,803	1,055,723
Iron, steel and manufacture	19,998,204	18,768,763
Other metals and manufacture	5,416,198	5,067,937
Arms, machines, etc	16,738,947	12,114,323
Vessels	2,565,893	1,488,012
Glass and manufacture	1,395,458	1,836,907
Horns, ivory, skins, hairs, etc	2,977,177	3,076,051
Drugs, etc	5,527,045	7,183,083
Dyes and paints	5,358,606	6,682,355
Paper and stationery	3,216,853	4,947,870
Petroleum	14,943,401	14.937,169
Other oil and wax	1,418,161	1,762,807
Manure	9,796,579	12,122,081

The chief articles of export from Japan are given in the following

table:	1001.	1902.
Articles.	Yen.	Yen.
Rice	6,908,913	6,679,544
Other corns and flour	137,809	1 59,589
Food	10,299,514	9.595.795
Tea	8,854,327	10,484,017
Wines, etc	1,925,288	1,709,592
Tobacco	1,748,493	2,365,793
Silk, raw	79,136,099	82,573,273
Silk and manufacture	30,001,040	31,380,836
Cotton yarn	21,465,578	19,901,523
Textiles	7.749,694	8,543,185
Clothing, etc	2,442,764	2,860,394
Copper	13.904,610	10,263,984
Copper manufacture and other metals and		
manufacture	1,916,663	2,532,467
Skins, hair, shells, horns, etc	1,035,811	1,106,701
Drugs and colors	0,576,367	6,150,749
Porcelains and earthenware	2,491,663	2,461,544

	1901.	1902.
Articles.	Yen.	Yen.
Matches	7,392,869	8,169,966
Paper and manufacture	1,659,301	1,735,588
Mats for floor	5,351,111	6,772,496
Straw-plaits	2,989,836	2,938,858
Oil and wax	1,709,551	2,486,914
Coal (without ships' use)	17,542,273	17,270,417
Miscellaneous	16,305,242	17,381,068

II. Shipping and Navigation.

In 1902, the merchant navy of Japan (without Formosa) consisted of 1,033 steamers of modern type, above 20 tons, aggregating 605,122 tons; 3,591 sailing vessels of modern type, above 20 tons, their aggregate tonnage being 329,839; and 1,260 native craft above 200 "koku," of 548,422 koku.

Below is given the shipping statistics of the Japanese ports (without Formosa), exclusive of coasting trade, for 1902, each vessel being counted at every port it entered.

	Entered.		Cleared.	
	No.	Tonnage.	No.	Tonnage.
Japanese steamships	3,226	4,309,164	3,239	4,324,213
Japanese sailing ships and junks.	1,465	72,254	1,542	75,531
Foreign steamships	2,985	7,000,240	2,972	7,097,378
Foreign sailing ships	88	102,779	92	107,951
Total	7,764	11,574,446	7,852	11,605,073

The following table shows the nationalities of foreign vessels entered the Japanese ports in 1902:

	British.	German.	Russian.	Norwegian.	American.	French.
No. of vessels	639	382	319	254	210	113
Tonnage	4,155,789	1,228,244	466,615	280,360	560,866	251,113

Of the total shipping in 1902, 729 vessels of 1,403,898 tons entered Nagasaki; 555 of 1,525,493 tons, Yokohama; 992 of 2,160,168 tons, Kobe; and 797 of 1,618,824 tons, Moji.

III. Formosa.

The following table shows the value of the trade of Formosa with Japan proper.

јаран ргорег.	1900.	1901.	1902.
	Yen.	Yen.	Yen.
Exports	4,248,558	7,345,956	7,407,498
Imports	8,439,033	8.782.256	9.235,290

The foreign trade of Formosa is shown in the following table:

	1898.	1899.	1900.	1901.	1902.
	Yen.	Yen.	Yen.	Yen.	Yen.
Exports	16,879,190	14,237,092	13,570,664	12,809.795	10,100.532
	12,827,190	11,114,922	10,571,285	8,298,800	10,816,868

The following table shows the chief articles of the foreign commerce of Formosa (re-imports and re-exports excluded) for 1901 and 1002:

Imports.		Exports.		
	1901. Yen.	1902. Yen,	1901. Yen.	1902. Yen.
Beverages and combustibles Drugs and dyes Metals and their manufacture Tissues, yarns, etc Oil and wax	2,676,670 1,044,674 2,264,528	1,534,375 1,830,590 312,333 2,038,125 943,206	6,241,145 930,719 1,799 429,965 37,129	9,690,127 2,778,387 15,829 427,786 15,560

PART II

JAPANESE SECTION-PALACE OF EDUCATION.

PART II.

JAPANESE EXHIBITS IN VARIOUS DEPARTMENTS.

CHAPTER I.

DEPARTMENT OF EDUCATION.

Introductory Remarks.

In collecting the exhibits in this department, the Japanese Commission, with the co-operation of the Department of Education, endeavored to make them represent some of the important features of our educational institutions and various works pertaining to the same which have made a remarkable progress in recent years. The Department of Education determined what and whose exhibits should be accepted.

Brief History of Education .-- The origin of the old system of education in Japan dates from the reign of the Emperor Ojin (270 A. D.), and reached its highest pitch of development during the reign of the Emperor Mommu (697 A. D.). In the latter part of the Twelfth Century it began to decline, and did not recover until late in the Sixteenth Century, when it entered another period of vigorous growth. With the accession of the present Emperor to the throne, in 1867, the old system of education gave way to the Western system, which has made wonderful progress in a comparatively short period. In 1860 regulations relating to universities and middle and elementary schools were promulgated. In 1871, the Department of Education was established, under the jurisdiction of which was brought all the affairs of education. In the succeeding year the Code of Education was drafted and put into force, which was, however, replaced by another code in 1879. This new code, too, was found deficient in many respects, and, after several changes and counter-changes, gave way to the Imperial Ordinance in 1886, which, though not without undergoing alterations in various minor points, has remained unchanged in its main features.

In 1890, a revision was introduced to the Imperial Ordinance relating to elementary schools. This revision inaugurated a system of compulsory education as regards elementary schools. In 1893, a measure was adopted by which to realize a wider dissemination of technical knowledge. The war with China in 1894-5, which resulted *inter*

alia in enormously augmenting our educational funds, was followed by a period of great activity in the field of educational undertakings. In 1900, the compulsory elementary education was made easier to enforce by the abolition of tuition fees. Moreover, where circumstances allow, primary education was to be made absolutely free.

According to the latest statistics (1902-1903), the number of various schools and their instructors and students stands as follows:

	No. of Schools.	No. of Instructors.	No. of Students.	No. of Graduates.
Elementary schools	27,154	109,114	5,135,487	935,429
Blind and dumb schools	. 19	101	1,063	96
Normal schools	57	1,031	19,194	9,058
Higher normal schools	. 3	129	1,094	247
Institutions for training middle				
school teachers	. 5	57	169	
Middle schools	258	4,681	95,027	11,179
Girls' higher schools	. 8o	1,175	21,563	4.809
Higher schools	. 8	301	4.781	875
Imperial universities	. 2	349	4,046	729
Special schools	56	1,350	19,964	2,685
Fine art schools	. 1	42	324	60
Music schools	. 1	45	423	23
Technical schools	854	2,789	60,051	8,317
Institutions for training technical	i			
school teachers		46	150	52
Miscellaneous	1,657	5,546	106,169	22,118
Total	36,158	126,712	5,469,442	995,676

The number of libraries in the same year was 67, which is rather small in view of the remarkable progress realized in other spheres of our educational institutions. The percentage of elementary school attendance has increased from 58.73 to 91.75 during the seven years following the Japan-China war. The increase in the number of schools and students since the same war is shown in the following table:

	Increase in No. of Schools.	Increase in No. of Students.
Elementary schools	3,194	1,797,927
Normal schools	10	13,475
Middle schools	184	75,464
Higher schools (girls)	52	18,503
Industrial schools	102	17,399
Higher normal schools	I	844
Teachers' training schools	8	319
Imperial university	I	2,659
Special schools		0,101

The expenditure of the Department of Education for the year 1885 did not exceed 1,000,000 yen, whereas it reached in 1902 to 7,090,000 yen, including both ordinary and extraordinary expenditures. A remarkable increase is also seen in the educational expenditure of Fu and Ken.

In Japan, schools established and maintained by the subscriptions and donations of private individuals form a very important factor in her educational system. These private schools cover quite an extensive field of instruction, ranging from the elementary to the more advanced courses of study.

The Present Educational System.—As a general rule the educational institutions of Japan are under the control of the Department of Education. There are, however, several exceptions to this rule.

The first of these exceptions is found in the Peers' School and the Peeresses' Schools, which are under the care of the Department of the Imperial Household.

In the second place, the Departments of the Army and of the Navy superintend the Military College, the Naval College, the School of Artillery, the Military Medical School, the *Toyama* Military School, the Naval Engineering School, the Military Cadets' School, etc.

The third exception is found in the School of Police and Prison Management and the School of Japanese Classics, under the direct surveillance of the Department of Home Affairs.

Again, under the control of the Department of Communications come the Post and Telegraph School and the Nautical School, where special topics connected with communications and marine transportation are taught.

Finally, the entire educational institutions of Formosa comes under the jurisdiction of the Governor-General of Formosa. These include the Japanese Language School, the Normal School, and elementary schools.

Libraries, Museums, and Educational Associations.—According to the statistics of 1902, there were one Government library, twenty public libraries, and forty-six private libraries. Among the books collected, those open to the public were 820,670 volumes, of which 751,278 were Japanese and Chinese, and 70,392 European and American works. A great majority of these books belong to the Government Library.

The most perfectly equipped museums in the country are those belonging to the Department of the Imperial Household. They are the Tokyo Imperial Museum, the Kyoto Imperial Museum and the Nava Imperial Museum. Among the museums especially intended for edu-

cation, the Tokyo Educational Museum attached to the Tokyo Higher Normal School and the Museum of Sapporo Agricultural School are comparatively large and well equipped. There are also some museums established by prefectural governments.

Along with the development of schools and educational administration, there has sprung up an enormous number of educational associations. Even in small villages or in remote mountain regions, there is hardly a place where such organizations can not be found. The most important of these associations is the Imperial Educational Society of Japan. By far the greatest number of the educational associations in Japan are of private organization, while many are subsidized by prefectural governments or municipalities.

Exhibits.

GROUP 1. Elementary Education.

1. Department of Education. Tokio-

Diagram showing the correlation between Higher and Lower Schools.

Statistical table showing the number of Government, public and private schools.

Diagram showing the cost of public education.

Diagram showing the physical development of pupils in Government, public and private schools.

A book on educational institutions of Japan.

Photos of the kindergarten attached to the Higher Normal School for Females.

Diagram showing the percentage of children of school age.

Comparative table showing the percentage of children of school age.

Statistical table showing the number of Government, public and private elementary schools.

Photos of the elementary school attached to the Tokio Higher Normal School.

Photos of the Tokwa elementary school established by the City of Tokio.

Statistical table relating to public normal schools.

Photos of the normal school of Tokio-fu

2. Elementary School attached to the Higher Normal School. Tokio-

Drawing.

Map.

Composition.

Children's work: Vocabulary lesson.

Phrase construction.

Science lessons.

Drawing lessons.

Specimens for science.

Models for sewing.

- 3. Kindergarten attached to the Higher Normal School for Females, Tokio-
- A book on nursery in the Kindergarten attached to the Higher Normal School for Females.

Designs for handiwork.

Kindergarten games.

Kindergarten songs.

Materials for handiwork.

Children's work.

Drawing.

Needle work.

Paper cutting.

Paper folding.

Paper setting.

Clay work.

Pea work.

- The Girl's Normal School of Tokio-fu, Tokio-
 - Examination papers on morals, pedagogies, Japanese, Chinese, history, geography, etc.
 - Examination papers on household management.

Exercise books on composition.

Exercise books on penmanship.

Exercise books on drawing.

- 5. The Normal School of Tokiofu. Tokio-
 - Examination papers on moral pedagogies, Japanese, Chinese, history and geography.
 - Examination papers on mathematics, physics, chemistry and natural science.

Exercise book on penmanship. Free handwriting. Instrumental drawing.

Tokio Higher Normal School, 6. Tokio-

- Specimens of manual works, with explanatory notes.
- Objects illustrating the process of teaching manual works in elementary schools and the tools used.
- Objects illustrating the process of teaching manual works in normal schools and the tools used. etc.

GROUP 2.

Secondary Education.

- 1. Department of Education. Tokio-
- Statistical table showing the number of Government, public and private middle schools.
- Statistical table showing the number of Government, public and private higher schools for females.
- Statistical table showing the number of Government higher schools.
- Photos of the First Higher School
- Photos of the Third Middle School of Tokio-fu.
- Photos of the Third Higher School for girls of Tokio-iu.
- Photos of the Tokio Higher Normal School and the Higher Normal School for Females.
- Statistical charts of Government Higher Normal Schools.

2. Higher Normal School for Females, Tokio—

Calendar of the school.

Syllabus of the school.

Details of courses of instruction in sewing, knitting and drawing.

Charts illustrating the process of embroidery and sewing.

Explanatory note to the same.

Copy book for drawing.

Set of instruments used in embroidery.

Set of instruments used in drawing (with explanatory notes). Pupils' works.

Pedagogies.

Composition.

Chinese.

English.

History.

Geography.

Mathematics.

Physics.

Chemistry.

Natural science.

Household management.

Embroidery.

Drawings (5 tablets, 7 vols., 1 case, 9 sheets).

 Higher School for Girls attached to the Higher Normal School for Females, Tokio—

Details of courses of instruction. Curriculum.

Models for sewing lessons.

Photos.

Works done by pupils—Morals, Pedagogies, Composition.

Letters.

Japanese language.

English language.

History.

Geography.

Mathematics.

Physics.

Botany.

Physiology.

Household management.

Drawing.

Sewing.

Penmanship.

4. Higher School for Girls of Kioto-fu, Kioto—

Articles made by the first-year students of the special course of industrial arts.

Man's cotton garment (lined).

Woman's silk garment (unlined).

Trousers for children.

Man's "obi" (belt).

Woman's cotton "haori" (coat).

Woman's padded cotton garment. Woman's katabira (thin garment).

Woman's silk garment (lined), and obi (belt).

Baby's cloth.

Hifu (coat) without sleeves.

Articles made by second year students of the special course of industrial arts:

Man's padded silk garment.

Man's unlined silk haori (coat). Rain coat.

Woman's padded garment.

Woman's padded silk haori (coat).

Girls' hakama (trousers).

Lady's garments pictured in colors.

Hakama (trousers) unlined.

Baby's hakama (trousers) made by third year students of the special course of industrial arts. *Hifu* coat of silk.

Socks.

Lady's long undergarment of silk.
Man's lined silk haori (coat).
Woman's lined crepe haori
(coat).

Hiyoku garment.

Kasane Katabira (double thin garment).

Silk hakama (trousers) lined. Lady's long-sleeved uchikake (overgarment).

Yogi (bed clothes for winter).

Specimens of raised fancy work: Articles made by the first year students of the special course of art industry.

Vessel for cakes.

Tray for visiting cards.

Chop-stick case.

Shashin-kake (photo frame), made by the second year student of the special course of industrial arts.

Tobacco case.

Hashira-kake (ornament for post).

Small bag.

Money purse.

Japanese head-gear (worn by child).

Ivory koto-string holder, made by the third year student of the special course of art industry.

Box. Wrapper with figures sewn.

F.lbow supporter.

Drawing-book.

5. The Middle School attached to Tokio Higher Normal School.

Exercise on English composition. Exercise on mathematics.

Map and drawing.

Note book on natural sciences.

Journals of To-in-kwai (pupils' society).

Memorandum book of class.

Pupils' diary.

Note of observations on the eclipse of the moon.

Sketch-book.

6. Ten Middle Schools of Osakafu, Osaka (collective exhibit)—

Explanatory remarks.

Photographs and their explanations.

Physics and chemistry class at Kitano Middle School.

Swimming class of Sakai Middle School.

Military drill of Yao Middle School.

Natural history class of Ibaraki Middle School.

Tennoji Middle School.

Jujutsu (kind of wrestling).

Class of lecture on morals.

Kishiwada Middle School.

Drawing, Ichioka Middle School.

Gymnastic exercise at Tondabayashi Middle School.

Japanese penmanship, Shijonawate Middle School.

Gekken (kind of fencing) Ikeda Middle School.

 The Second Higher School for Girls, of Tokio-fu, Tokio— Drawing.

GROUP 3.

Higher Education.

1. Department of Education, Tokio—

Photographs of Imperial University of Tokio.

Statistical table of Imperial Universities.

Statistical table of Government special schools of medicine.

Photos of the Tokio Higher Technical School.

Statistical table relating to Government Higher Technical School.

Photos of the Imperial Library.

Photos of the Library of Osakafu.

Photos of the Imperial Museum of Tokio.

Photos of the Educational Museum of Tokio.

2. Imperial University of Tokio, Tokio—

Memorandum of University.

A screen with photos, showing various experiments and apparatuses relating to psychophysics.

Apparatuses for ascertaining momentary sensation of colors and shapes.

Comparative study of various stimuli to the human attention.

Apparatus for ascertaining the velocity of transmitting the vibration of solution within a caoutchout tube.

Apparatus for ascertaining the quantity of electric current produced by platina-electrode on touching the point which the vibration of a solution within a caoutchouc tube passes.

Apparatus for ascertaining the extent of vibrations which passes through a solution within caoutchout tubes of different dimensions.

Apparatus for ascertaining the velocity of writing movements.

Apparatus for ascertaining the comparative time of cognition of *Kana*, Chinese characters and Roman letters.

Experiments for measuring the time required for various mental functions.

Experiments on comparing the length of subjective time.

Experiments on the measurement of rhythmical function.

Specimens and charts showing classes and distribution of the relics of the Stone Age.

Instrument for measuring the tension of magnetic bodies when magnetized.

Instrument for measuring the vibration of pendulum stand.

Models of the topographic anatomy of the horse.

Topographic anatomy of pelvic cavity and inguinal region.

Arteries of pelvic cavity.

Arteries of anterior and posterior extremities.

Veins of anterior and posterior extremities.

Arteries of brain.

Hoof.

Report of Agricultural College.

3. Tokio Higher Technical School, Tokio—

Figured satin for obi.

Serge for hakama.

Dyed pattern book.

Dyed pattern for lining.

Plans of workshop for dyeing

and weaving.

Figured satin for household articles (made by students of dyeing and weaving section).

Woven patterns.

Silk handkerchiefs.

Muji somemono (dyed patterns unfigured).

Printed patterns.

Utensils used in Japanese print-

Flower vase of Asahi ware.

Placque of Asahi ware.

Porcelain flower vase.

Majolica futamono (jar) and ash tray.

Stone flower vase.

Placque of stone.

Set of porcelain ware, etc., illustrating the process of manufacturing porcelain.

Zen (square tray).

Wan (wooden bowl), etc.

Bon (tray).

Sake (soft liquor).

Mirin (sweet sake).

Soy.

Koji (yeast rice).

Vermillion.

Chrome yellow.

Prussian blue.

Iodine.

Sulphate of alumina.

Sulphate of aluminia.

Acetate of lead.

Camphor.

Menthol.

Petroleum.

Rape seed oil.

Picric acid.

Photos made by students of mechanical section.

Bronze flower vase.

Bronze flower pot.

Specimens of colored bronze.

Instrumental drawings (by students of electro-mechanical section).

Map showing electrical plants in

Japan.

Reports of experiments (made by students of electro-mechanical course).

Reports of travels (made by students of electro-mechanical course).

Refined copper.

Carbonate of lime.

Straw electrically bleached.

Gas cotton.

Rugs.

Designs for wall paper (made by students of industrial designing).

 Lacquered cigarette case with photographic pictures (made by students of industrial designing).

Instrumental drawings (by students of architecture course).

Map showing places where the graduates of this school are employed.

GROUP 4.

Special Education in Fine Arts.

- 1. Department of Education, Tokio—
- Photos of the Tokio Fine Art School.
- Statistical table relating to Government Fine Art School.
- Photos of the Tokio Academy of Music.
- Statistical table relating to Government Music School.
- 2. Tokio Fine Art School, Tokio—
 - Folding screen (course of Japanese drawing).
- Copy book of designs (course of Japanese drawing).
- Oil painting, character (course of European drawing).
 - Oil painting, scenery (course of European painting).
 - Oil painting, flowers (course of European painting).
 - Oil painting from nature, character.
 - Oil painting from nature, genre (course of European painting).
 - Water color painting, character (course of European drawing).
 - Water color painting, historical sketch, (course of European drawing).
 - Designs for decorating walls, in water color (course of European drawing).
 - Tablet showing various designs of architectural decoration (course of designing).

- Tablet showing various designs of industrial articles (course of designing).
- Stag for ornament (course of sculpture).
- Small screen inlaid with figure, flower, etc. (course of sculpture).
- Buddhist deity Monju for ornament (course of sculpture).
- Cock, carved in wood (course of sculpture).
- Man, carved in wood (course of sculpture).
- Jikubon (tray to put kakemono) (course of sculpture).
- Incense burner, silver (course of metal engraving).
- Silver ornament, with birds (course of metal engraving).
- Silver case for incense (course of metal engraving).
- Silver vessel for flower (course of metal repousse).
- Silver flower vase (course of repousse).
- Copper water pot (course of repousse).
- Material for the seal, copper (course of metal casting).
- Paper weight (course of metal casting).
- Pen supporter (course of metal casting).
- Okimono, ornament (course of metal casting).
- Sumidai, inkstand course of metal casting).
- Ink-stone.
- Box for writing materials (section of lacquer work).

Box for colored paper (section of lacquer work).

Fubako, letter case (section of lacquer work).

Kyarabako, incense box (section of lacquer work).

Natsume, case for keeping tea (course of lacquer work).

Nikuchi, vessel to put in stamp and ink (course of lacquer work).

Chabako, tea box (course of lacquer work).

Kobon, tray for incense (course of lacquer work). Tablet showing products of art

industry.

Description of the Tokio Fine

Description of the Tokio Fine Art School (in tablet).

Cards containing short account of the school.

GROUP 5.

Special Education in Agriculture.

1. Department of Education, Tokio—

Statistical table of Government Higher Agricultural Schools.

2. Sapporo Agricultural School, Hokkaido—

Journal of the Sapporo Agricultural School.

Photos:

View of the main building.

Interior view of the agricultural laboratory.

Interior view of the zootechnical laboratory.

Interior view of chemical laboratory.

Interior view of botanical-pathology laboratory.

Interior view of herbariumpathology laboratory.

Interior view of entomological laboratory.

Reading room in the library.

View of experimental farm.

View of water field.

View of cattle shed and cattle in pasture.

View of mowing grass.

View of gathering crops.

View of orchard.

View of ploughing.

Faculties of the school.

Explanatory notes.

GROUP 6.

Special Education in Commerce and Industry.

1. Arita Technical School of Saga-ken.

Rindate (vessel for holding small flower).

Flower vase.

Jar.

Cake plate.

Designs for porcelain.

Corean dog for ornament (porcelain).

Incense box. Flower vase.

Mantel ornament.

2. Department of Education,
Takio—

Photos of the Girls' Industrial School (incorporated).

Album of photos of lacquer work school established by the Lacquermen's Union of Shizuoka. Album of photos of Agricultural School of Iwate-ken.

Photos of Art and Industrial School of Kagawa-ken.

Album of photos of the Art and Industrial School of Toyamaken.

Photos of the Arita Technical School of Saga-ken.

Photos of the Technical School of Ishikawa-ken.

Album of photos of dyeing and weaving school of the city of Kyoto.

Album of photos of the Fine Art and Industrial School of the city of Kyoto.

Dyed and woven patterns of old and new style.

Statistical table showing the number of Government Higher Commercial Schools.

Photos of the Tokio Higher Commercial School.

Dyeing and Weaving School of the City of Kyoto—

I. WEAVING SECTION.

Kobai kaiki silk (by students of special course).

Handkerchief of *habutai* silk (by students of special course).

Cotton of plain weaving (by students of first year course).

Cotton woven with a twill (by students of the first year course).

Ichiraku cotton (by students of the first year course).

Satin (by students of the first year course).

Cambric (by students of the second year course).

Doily (by students of the second vear course).

Handkerchief.

Pique.

Futsu.

Shuchin necktie (by students of the third year course).

Atsuita.

Product of power loom.

2. DYEING SECTION.

Specimens of dyed thread, cotton and linen (by students of the first year course).

Specimens of silk and wool threads (by students of second year course).

Species of black dye (by students of second year course).

Pattern of print (by students of third year course).

Cotton of sarasa print (by students of third year course). Figured cotton (by students of

third year course).

Colored fukusa or cloth used for wrapping (by students of third year course).

Colored *hanyeri*, or collars of garments for women (by students of third year course).

Black dye with family badge (by students of special course).

Cloth for dyeing (by students of special course).

Cotton threads (by students of special course).

Designs.

Outline of instruction in designing. 4. Fine Art and Industrial School of the City of Kyoto—

Drawing from copies (by students of first year course).

Flower and insects drawn from nature (by students of first year course of drawing section).

Sketch drawn from nature (by students of second year course of drawing section).

Figures drawn from the given problems (by students of third year course of drawing section).

Figures drawn from nature (by students of post-graduates of drawing section).

Design drawn from nature (by students of second year course of design section).

Design with various figures (by students of third year course of design section).

5. Girls' Industrial School, Tokio (incorporated)—

Models of ordinary Japanese garment (sewing course).

Miniature works of art:

Crysanthemum pouch (sewing course).

Creeping baby doll (sewing course).

Lobster (sewing course).

Turbot (sewing course).

Flower of a flag plant (sewing course).

Kachifukuro, a bag (sewing course).

Table cover (knitting course). Hand bag (knitting course).

lacket (knitting course).

Stockings (knitting course).

Silk braid (knitting course).

Tablet (embroidery course).

Screen (embroidery course).

Basket of artificial flowers (artificial flower course).

Specimens showing process of manufacturing.

Tablets of drawing (drawing course).

Description of the school (for distribution).

Brief description of the school (in tablet).

6. Industrial Art School of Kagawa-ken, Kagawa-ken—

Watches (with covers engraved). Cock for ornament.

Tablet for ornament.

Specimens of wood engraving, metal engraving (original design).

 Industrial Art School, Toyama-ken—

Statuette of Niwo (a Buddhist deity).

Cock for ornament.

Flower vases.

Flower vase and design (illustrating the process of manufacturing).

8. Lucquer Work Apprentices' School of Aidzu, Fukushima-ken—

Trays.

Cake vessels.

Cigarette cases.
Cigar cases.
Stand for flower vase.
Flower stand.
Round vessel for cakes.
Cups.
Designs.

 Lacquer Work School, established by the Lacquermen's Union of Shizuoka, Shizuoka-ken—

Tablet showing the two processes of manufacturing lacquer ware and embossed gold ware.

Trays. Boxes.

Card trays.

 Nagoya Commercial School of the City of Nagoya—

Photos and statistics in tablet. Specimens of pupils' work. Calendar of the school.

 Technical School of Ishikawaken, Ishikawaken—

Tablet showing the work of firstyear students in designing and painting course.

Tablet showing the work of second year students in designing and painting course.

Tablet showing the work of third-year students in designing and painting course.

Tablet showing the work of fourth year students in designing and painting course.

Plate (first-year course, Ceramic Department).

Cups and saucers for coffee (second year course, Ceramic Department).

Flower vase (third year).

Image of woman for ornament (first year).

Plate (second year).

Flower vase (third year).

Figure of girl and cat for ornament (fourth year).

Flower vase (joint work of students of various grades).

GROUP 7.

Education of Defectives.

1. Tokio Blind and Dumb School, Tokio—

Kana typewriter for the blind.
The 25-point and 36-point letter

plates. Portable point letter plate.

Reading of point letters.

Spelling of point letters.

Japanese constitution in point letters.

Imperial rescript in point letters. Extract from physiology in point letters.

Anatomy in point letters.

Life of Hanawa Kengyo, a learned blind scholar who lived about 150 years ago, in point letters.

Koto (a kind of harp).

Instrument used in acupuncture. Photos.

Drawing by dumb pupils.

Explanatory account of the school.

GROUP 8.

Special Forms of Education—Text-Books, School Furniture and School Appliances.

- 1. Central Meteorological Observatory, Tokio—
 - History of meteorological works in Japan.
- 2. Earthquake Investigation Committee, Tokio—
 - Reports of the committee.
 - Maps showing earthquake districts.
 - Vertical vibration measurer (bridge and railway carriages).

- Instrument for measuring minute vibration.
- Horizontal tremor recorder.
- 3. Imperial Education Society, Tokio—
 - Statistics of the Imperial Educational Society of Japan.
 - Statistics of library belonging to the Imperial Educational Society of Japan.
 - Table showing the various educational societies in Japan.
 - Short account of the Imperial Educational Society of Japan.

CHAPTER II.

DEPARTMENT OF ART.*

Introductory Remarks.

General Remarks.—The fine arts of Japan, especially painting and architecture, originated in sources entirely independent of those of western countries. Consequently, the Japanese works of art possess many characteristics which bear no semblance of similarity to the products of western artists. Take the case of painting, for instance. Instead of producing the minute details of the object which he pictures, the Japanese artist lays stress upon the general appearance which he catches at the moment he has glanced at his object. It is not without reason that Occidental critics of art have often compared the Japanese painting to a poem and the Japanese artist to a poet. Like a poet, the artist of Japan employs his imagination, his ideal, and his aspiration in his work rather than to merely faithfully picture the real form and appearance of his object. Hence, the Japanese painting possesses gracefulness, delicacy and dignity, that can not be seen in Western painting.

As regards the Japanese art of carving, we find that it was influenced by Buddhism, as the Greek sculptor underwent the influence of mythology. Like the Greek sculptor who was absorbingly interested in producing the images of mythological deities, the effort of the Japanese carver was almost exclusively confined to the production of the sacred images of Buddha and his disciples. In the case of the latter, however, the free activity of the artist was somewhat hindered, as his only subject, the image of Buddha, did not admit of the unqualified exercise of his imagination. But in recent years the scope of activity of the Japanese carver has become broader. He now takes many and varied subjects for his work, and not a few of his products show an excellent expression of his imaginative power.

Japanese architecture is also indigenous to Japan, without its counterpart in the Occident. Since the advent of Western customs in the Island Empire, the structure of Japanese buildings has received a considerable influence from Western architecture.

I. Painting.

With the introduction of Buddhism from the Asiatic Continent, the pictorial art of China was imported to Japan. This is the first beginning of Japanese painting worthy of note, although previous to that

^{*}For art manufactures, compare the chapter on manufactures.

JAPANESE SECTION-PALACE OF FINE ARTS.

time there had existed an art of drawing indigenous to Japan. The adopted art from the Continent made such a rapid progress that in the latter part of the Ninth Century it produced a great artist in the person of *Kanaoka Kose*, who founded a school identified with his name. This school was especially prominent in painting the images of Buddha and such pictures as represent Buddhist ideas.

In the course of the Tenth and Eleventh Centuries, a new idea of painting introduced certain modifications of the old style, leading to a formation of a style characteristic of Japan. The new style was called the *Tosa School*, and took as its subjects manners and customs prevailing among the court ladies and nobles. From the latter part of the Twelfth to the end of the Thirteenth Century, the subjects of painting became more varied, including among others such favorite subjects as wars and battles, temples and shrines, and the woe and weal of human life. Most of the products of this period are still to be found.

Between the Fourteenth and Sixteenth Centuries, a new departure was made in the pictorial art as a result of the advent of Zen sect, a branch of Buddhism, in Japan. Along with its religious ideas, this sect imported the Chinese art of the So dynasty, which excelled in painting mountain and streams, flowers and birds, saints and other imaginary figures. At first this new school in Japan was famous for producing bold and conventional pictures. In time, however, it attained a state of remarkable delicacy and fineness. Among its advocates the most famous were Scssu, a Buddhist priest, who was the founder of a school called the Unkoku School; Mcicho, another Buddhist priest, who had no equal in painting the images of the disciples of Buddha, and Masanobu Kano and Motonobu Kano, who founded another school known by their family name.

The two schools, *Tosa* and *Kano*, stand most prominent in the Japanese history of painting. The *Tosa School* is famous for the fineness and delicacy of its work; the *Kano School*, on the other hand, is without rivalry in the grandeur and magnificence of its products. In the Seventeenth and Eighteenth Centuries, certain artists belonging to the latter school inaugurated a new idea and endeavored to produce ornamental pictures which were applied to such art manufactures as porcelain and the like.

The end of the Eighteenth Century was made memorable by the introduction of the Chinese School of the Min and the Shin dynasty, which approached a realistic style of painting nearer than any preceding school. This new school branched off into the Nanso School and the Maruyama School, both of which excelled in painting landscapes, flowers, birds, and such like.

Besides these schools, there was a school called *Ukiyoye*, which was originated by *Matabei Yuwasa*, in the Seventeenth Century, and represents the popular or artisan school of art. Discarding the stiff conventionalities of the classical schools, the *Ukiyoye* artist devoted himself to the treatment of common themes and of subjects quaint and humorous. The printed reproductions of the original works of this school have become circulated very widely since the latter part of the Eighteenth Century. Among the prominent artists of this class are *Moronobu*, *Sukenobu*, *Harunobu*, *Utamaro*, and *Hokusai*.

European schools of painting were first introduced to Japan late in the Sixteenth Century. Between that time and the opening of Japan to international communication, western art made little progress. Following the inauguration of the new regime, however, it entered another era in which it has made a gradual but steady progress.

During the past twenty years Japanese painting has been recovering from injuries which it suffered because of the many difficulties that Japan had to encounter for several ages previous and subsequent to her political regeneration. The government has been taking great care to encourage art by establishing art schools and by frequently holding art exhibitions. Oil painting and water color drawing have been improved considerably since the Technological University, which was affiliated with the Tokyo Imperial University, employed Western instructors in drawing and painting.

At present the different schools of the original Japanese art can hardly be distinguished from each other. The Tosa School is now almost extinct. The Kano School has almost lost its original style, although there are a few celebrated artists who still claim to belong to this school. The only school which preserves its original characteristics and style is the Maruyama School, founded by the famous Okio Maruyama. Its realistic style has been favored by the modern lovers of art. Among its present devotees may be found several prominent and promising artists. Next to the Maruyama School, the Nanso and the Ukiyoye School still occupy an important position. Beside these various schools descended from the artists of the olden times, certain artists have been striving to create new styles by modifying or harmonizing old schools.

II. Carring and Sculpture.

Like painting, the Japanese arts of carving and casting began to make rapid progress after the introduction of Buddhism, which necessitated the installation of the carved or cast images of Buddha. When Prince Shetoku (572-621), the Constantine of Japanese Buddhism, was

erecting a large number of Buddhist temples and monasteries, there appeared several celebrated artists who devoted themselves exclusively to the carving of the images of Buddha. During the reign of the Emperor *Shomu* in the Eighth Century, the art of carving and casting Buddha's images reached the highest degree of skill. The materials used were wood, bronze, clay and lacquer. This art originated in India, and was brought to Japan through China. The Japanese artist modified its original ideas and in time produced a new style. Many of the works of this period are still found in existence.

Since the Eighth Century the art of making holy images steadily progressed, and in the course of the Twelfth and Thirteenth Centuries many celebrated artists appeared in succession. In the Fourteenth and Fifteenth Century, the rise of the Zen sect gave birth to the carving of the images of Buddha's disciples in a large number. In the Seventeenth Century the Chinese carving of the Min dynasty was imported to Japan, where it found a considerable number of advocates.

Beside the holy images of Buddha and his disciples, the art-forms of this class involved masks, the inro and tobacco-pouch, and ornaments for various kinds of buildings. The application of this art to the making of masks was brought about by the prevalence of Bugaku, a species of lyric drama, in the Seventh and Eighth Centuries. The appearance of Nogaku, a sort of pantonime dance, in the Fifteenth Century, stimulated the advancement of the art of mask carving to a greater extent. These masks were of varied kinds, quaint and queer, and made out of the imagination of their authors. Their favorite materials were wood and lacquer.

In the second half of the Seventeenth Century the *inro* and the tobacco-pouch became very common, resulting in time in the development of an art especially adapted to the making of such articles. The *inro* is a small medicine-box in segments, held together by means of a cord, to one extremity of which a *netsuke*, a kind of button, is attached, to be fastened to the belt or sash. These little articles—the *inro*, *netsuke*, tobacco-pouch, and the like—were carved out of wood, bamboo, ivory, or horn, and have since developed into gems of art.

Carvings ornamenting various kinds of buildings became prominent in the second half of the Sixteenth Century, when temples and monasteries were built in luxurious and elaborate style. The templegate and ex-voto hall, the oratory and corridor, the belfry and pagoda, and the main temple and priest's apartments, were all decorated with excellent carvings. The temples at Nikko show the most famous specimen of the arts of this period. Pillars and beams,

panels and windows, were all decorated with the carvings of flowers and birds, dragons and holy birds, lions and tigers, and saints and other imaginary figures, all displaying an excellent skill and rare dexterity.

Like painting, the art of carving and sculpturing sank into insignificance from the beginning to the latter part of the past century. During the last generation, however, this declining art has been regaining its prominence. As the *inro*, tobacco-pouch, and such like have become favored by foreigners, the carvers of Japan have been vying with each other to produce *chefs-d-oeuvre* in such articles. Gradually, they have emerged from this restricted field, and at present their ivory works are of greatly varied kinds and forms. In the meantime, many factors have been at work to assist in the promotion of the art of carving. The Tokyo Art School inaugurated a course of carving, especially encouraging wood carving; the Art Association of Japan was organized: the formation of the Tokyo Carving Association followed it, all co-operating to improve the work of carving.

Meanwhile, the excellent quality of Occidental sculpture has become gradually recognized, creating a keen interest among artists in the realistic treatment of themes. This recognition exerted a considerable influence upon wood and ivory carving characteristic of Japan. Although wood carving is credited with many excellent artists, the volume of their work has been rather insignificant as compared with the works of ivory carving, which are in considerable demand in foreign countries.

The young art of sculpture is now progressing in Japan with fresh energy and vigor, keeping pace with the advancement of carving. The Japanese sculpture, however, is greatly handicapped on account of the scarcity of marbles or other stones available for this art. Consequently, stone sculpture is still in a state of infancy. Sculptural works of small size have been frequently produced out of metals, their designs being formed for the sole purpose of ornamenting rooms.

Carvings for the decoration of buildings are still confined to those for temples and shrines. There are very rare instances of ordinary dwellings ornamented with carvings. Even in buildings of Western style, decorative carvings are merely nominal. The characteristic Japanese carving of Buddhistic figures is now sadly neglected, being entirely left in the hands of insignificant artisans. Subjects for carvings and sculpture are at present sought in figures and facts in history or in animals. Mythological figures which stand prominent in Western sculpture do not form favorable themes for Japanese artists.

III. Architecture.

Shrines and Temples.—The ancient buildings of Japan were crude and primitive. Some of the characteristics of the primitive hut can be still seen in Shinto shrines and temples, which undoubtedly developed from ancient forms of dwellings.

The advent of Buddhism in Japan brought about the import of more elaborate styles of architecture of Buddhist temples and monasteries from China and Korea. What are known as Kasuga-Zukuri, Nagare-Zukuri, and Yamune-Zukuri, are products of the combination of Buddhist architecture from the continent with the original style of Japanese buildings. In the Eighth Century, the Buddhistic architecture reached a considerable degree of perfection.

Pagodas, three-storied, five-storied, or nine-storied, and round temples, were creations of this period, and are still regarded as the most artistic of the Japanese architectural accomplishments. In the Ninth Century, the *Tahoto*, or pagoda-shaped reliquary, and the *Monjuto*, a species of tower, were added to Buddhistic styles of architecture. The succeeding two centuries brought about a remarkable perfection of temple architecture. Temples vied with each other in beauty and grandeur.

The appearance of the Zen sect, in the Twelfth Century, gave rise to new styles of Buddhist architecture in the forms of the Hojo, or priest's apartment, and the Shoin, or priest's reception room. In the Seventeenth and Eighteenth Centuries, the architectural form of monasteries and temples reached a still higher perfection, the carvings adding greatly to their beauty and magnificence. It was in this period that the Buddhistic architecture and that of Shinto were so combined and harmonized as to give birth to a unique new style of structure of which the Nikko temples and the temples of the East and West Hongwanji at Kyoto are a few specimens.

Palaces and Castles.—The architecture of the Japanese palaces was also imported from China in the Eighth Century. The dwellings of court nobles, known as the Shinden Zukuri, were also modeled after the Chinese architecture. In the Twelfth Century, military chiefs built their palaces in a style different from those of the dwellings of courtiers. This style was called the Buke-Zukuri.

An harmonious combination of these two styles and the Buddhistic architecture of the Zen sect was realized in the Fifteenth Century, and was known as the Shoin-Zukuri. The presence of an architectural style of the tea-room, called Sukiya-Zukuri, also dates from this period.

In the second half of the Sixteenth Century the feudal lords began to build their castles in a luxurious and elaborate style. The towers and palaces of these castles attained a considerable degree of grandeur.

Modern Architecture.—At present, shrines and temples are still modeled after the styles of olden days. The forms of dwellings which are common at present were also derived from the old Shoin-Zukuri and Sukiya-Zukuri.

The introduction of Western architecture has remodeled most public and office buildings in the more important towns after the Occidental forms of building. The advancement of the science of architecture and of technical knowledge are co-operating to improve the art of building, both in the original and the Western style.

Exhibits.

GROUP 9.

Pointings and Drawings.

Ando, Jubei, Nagoya—

Bowl, cloisonné, made by
Kawade Shibataro

Araki, Jippo, Tokio-

- Mandarin and Wild Ducks among Reeds in Lake: Autumn Scene.
- Araki, Kampo, Professor of the Tokio Fine Art School, and Imperial Court Painter, Tokio—
 - Pheasants on Rock by Lake: Autumn.

Atomi, Madame Giokushi, Tokio-

Chrysanthemums and Sparrows in Rain.

Fukunaga, Kobi, Tokio—

4. Picnic Party under Cherry Trees in Spring.

Gcjo, Masao, Tokio-

Landscape in Snow with a Fisherman's Cottage.

- A Pair of Screens: Heron and Willow in Snow, and Crow and Pine.
- 7. A Pair of Screens: Landscape, Bamboo Forest.

Goscda, Horiu, Tokio-

- 8. Poppy Field.
- 9. A Quiet Mountain Stream.
- 10. Mountain Village.

Hashidate, Shisen, Tokio—

11. Chrysanthemums and Birds.

Hashimoto, Gaho, Imperial Court Artist, Tokio—

- 12. Landscape: "Windy Day in Mountain."
- 13. Landscape: "Twilight in Forest."
- Landscape: "Winter Morning and Wild Ducks."
- Landscape: "Mount Horai and Sunrise."
- 16. Landscape: "Mountain Stream in the Morning."
- 17. Landscape: "Tinted Leaves and White Stream."

18. Landscape: "Spring and Autumn." A Pair of Screens.

19. Landscape: "Rain and Snow." A Pair of Screens.

Hata, Hoyei, Kioto-

20. Portrait of Kishimoiin (Hariti) with her Attendants.

Hirai, Chukusui, Osaka-

21. Peacock and Peahen.

Hirosc, Toho, Tokio-

22. Flying Pheasant and Autumn Flowers.

Hookabe, Kinshu, Tokio-

23. Fashionable Young Lady of Fifty Years Ago.

Imao, Keinen, Kioto-

24. Spring Lespedeza and Group of Cock, Hen and Chickens.

25. Summer, Peonies and Birds.

26. Autumn, Chestnut and Birds.

27. Winter, Withered Flowers and Birds.

Ito, Sadabumi, Tokio-

Vase, lacquered on metal and inlaid with mother-of-pearls.

Ishii, Sodo, Kioto-

28. Carps at Play.

Kanamori, Nanko, Tokio-

20. Young Lady of the Present Period.

Kanda, Bunsho, Kito-

30. The Most Merciful Kwannon.

Kawamura, Giokun, Tokio-

31. Historical Picture: A Scene in the Life of Yoritomo, who Became the First Shogun of Japan.

Kawabata, Giokusho, Professor of the Tokio Fine Art School and Imperial Court Artist, Tokio-

"Forest 32. Landscape: and Stream in Autumn."

Kawai, Giokudo, Tokio-

33. Landscape: "Autumn Scene in Mountain Valley."

Katano, Hidemaru, Tokio-

34. Japanese Kitchen of the Middle Class.

Kobayashi, Gokio, Tokio-

35. Chrysanthemum and Fowls.

Kobayashi, Mango, Tokio-

36. Street Musicians.

Kochi, Gagei, Tokio-

37. Angels' Return to Heaven.

Komiya, Tokei, Tokio-38. Carps at Play.

Kubota, Kinsen, Tokio-

39. Fish Market on Hokkaido Coast. A Pair of Screens.

40. Spring: "Pine and Autumn." "Maple and Wagtails." A Pair of Screens.

Matsubayashi, Keisui, Tokio-

41. Chrysanthemums and Group of Fowls.

Mayeda, Madam Giokuyci, Kioto.

42. Cock, Hen and Chicks Feed-

Missutani, Kunishiro, Tokio-

43. Doll's Festival.

44. Landscape: Return of the Junks.

Mori, Shungaku, Kioto-

45. Landscape: Mountain Stream.

Morohoshi, Seisho, Tokio-

46. Mother Owl Feeding Young.

Muramatsu, Ungai, Kioto-

47. Crow and Pine in Snow.

Murase, Giokuden, Tokio-

48. The Flower of the Spring: "Cherry and Ducks."

49. The Flower of the Autumn: "Chrysanthemums,"

Nagahara, Kotaro, Tokio-

Young Nurse after a Dragon Fly.

Nakada, Shokio, Tokio-

 Cock and Hen under Bamboo and Roses.

Nakamura, Kinjo, Tokio-

52. Bird, Rock and Peony.

Nakazawa, Hiromitsu, Tokio-

53. A Hakone Mountain Chair.

Noguchi, Suinu, Tokio-

54. Lonely Duck among Reeds in Lake.

Nomura, Bunkio, Tokio-

55. Kiyomizu Temple in Snow.

56. Arashiyama in Rain.

Ogata, Gckko, Tokio-

 Pleasure Boat on Sumida in Cherry Season.

Ohashi, Suiseki-

58. Tiger, a Pair of Screens.

Oku, Yoshiye, Tokio-

59. Water Wheel.

Okazaki, Sessei, Tokio-

Vase, bronze decoration of badger in relief.

Vase, bronze decoration of carp in relief. Vase, bronze decoration of sea waves in relief.

Vase, bronze decoration of gourd leaves in relief.

Ornamental bronze stand, two carps.

Okada, Saburosuke, Tokio-

60. A Kioto Dancing Girl.

61. A Tokio Dancing Girl.

Oshita, Tojiro, Tokio-

62. A Japanese Garden in Autumn.

63. A Forest in the Evening.

Otake, Chikuha, Tokio-

64. True Heart, Mother and Children.

Sato, Shiyeu, Tokio-

 Peacock, Peahen and Pine. Exhibited by Kahichi Nozuye, Tokio.

Sckida, Katci, Tokio-

66. Chrysanthemums and Birds.

Shimazakı, Rina, Tokio-

67. Devoted Heart: Grand-daughter decorating Grandmother's Hair with Flowers.

Shimidsu, Toyo, Tokio—

 Landscape: Fuji in Distance and Pines in Foreground.

Shirataki, Ikunosuke, Tokio-

69. Two School Girls.

70. Girls' Music Rehearsal.

Shouo, Sonosuke, Tokio-

71. Old Woman at Needle Work.

72. A Persimmon Tree.

Suzuki, Shoscu, Kioto-

 Landscape: Pines in Foreground and Mountains in Distance. Takashima, Hokkai, Tokio-

 Landscape: Rocky Mountain near Yellow Limestone.
 Exhibited by Shinzo Takata, Tokio.

 Landscape: Rocky Mountains near Lake MacDonald. Exhibited by Shinzo Takata, Tokio.

Takashima, Shin, Tokio-

 The Shrine of the Second Tokugawa Shogun in Shida Park.

Takahashi, Giokuyen, Tokio-

 Landscape: Cottage Among Pines with Mountains in Distance.

Takano, Riodo, Tokio-

80. The Perfume of Flowers, Mother and Two Daughters.

Umemura, Keizan, Kioto-

81. Hawk and Reeds in Snow.

Utagawa, Kunimine, Tokio-

82. Bride of the Good Old Days.

Uycda, Manshu, Kioto-

83. Fighting Cocks.

Uyemura, Madam Shoyen, Kioto-

84. Group of Three Ladies by Cherry Tree Dressed in Spring Fashion of Hundred Years Ago.

Wada, Yeisaku, Tokio-

85. Portrait of a Young Lady.

Watananabe, Scitci, Tokio-

 Lotus and Duck in Autumn. Exhibited by Kahichi Nozuye. Tokio. Yamamoto, Morinosuke, Tokio-

87. Landscape: A Mountain after Rain in Late Autumn.

Yamamoto, Shunkio, Kioto- .

88. Landscape: Hodsugawa in Rain.

89. Wistaria and Bird.

Yasaki, Chiyoji-

90. Portrait, oil painting.

Yoshida, Hiroshi, Tokio-

 Landscape: Cherry Trees by Morning Light.

92. Landscape: Lotus Pond by Evening Light.

Yuasa, Ichiro, Tokio-

93. A Village Maid at Rest.

94. Landscape: Winter Cold and Barren.

GROUP 11.

Sculpture.

Abc, Insai, Tokio-

95. Child chasing a Dragon Fly. Bronze.

Honbo, Gitaro, Tokio-

96. A Farmer. Bronze.

Inoue, Seisuke, Fukuoka— '

97. A Wood Cutter. Terra cotta.

Ishii, Kihyoye, Tokio—

98. A Young Elephant. Bronze.

99. A Mother and Child. Bronze.

Kaneda, Kanejiro, Tokio-

100. Grandmother and Grandson. Bronze.

101. Hard at Work—Grandfather and Granddaughter ploughing. Bronze.

102. A Wood Cutter. Bronze.

103. Old Woman lighting Candle. -Bronze.

104. Fisherman Coming Home. Bronze.

105. A Hunter. Ivory.

106. Old Woman sweeping. Ivory.

107. Farmer blowing Dust from Rice. Ivory.

Mikawa, Kozaburo, Tokio-

108. Skull, Large. Ivory.

109. Skull, Small. Ivory.

Mori, Hosei, Tokio-

110. Statue of Chigusa Tadaaki, the Famous Archer. Wood.

Murata, Kichigoro, Tokio-

111. Angler. Ivory.

112. Grandfather playing with his Pet Grandson. Ivory.

Omachi, Yeijiro, Tokio-

113. Wood-cutter enjoying a Drink. Ivory.

Toyama, Chozo, Tokio-

114. Angel. Ivory.

115. Old Fisherman. Ivory.

116, Old Sower. Ivory.

Udagawa, Kazuo, Tokio-

117. Young Mother at Luncheon. Bronze.

Watanabe, Osao, Tokio-

118. Farmer making Rice Bag. Bronze.

Yakushiji, Koun, Tokio-

119. Statue of a Girl with Book. Plaster.

Yamazaki, Choun, Tokio-

120. Cowboy with Milk Pail. Bronze,

121. Young Boy at Play. Bronze. Yonchara, Unkai. Tokio—

122. Courtesy. Wood.

GROUP 12. Architecture.

Morita, Ichigoro, Toyama-

123. Design for a Gate, with Chrysanthemum Decoration, showing Front.

124. The Same, showing the Side, with the Ground Plan of the Gate.

Sasaki, Iwajiro, Tokio-

125. Design for the Private Residence of Mr. S. Asano in Tokio.

GROUP 14.

Original Objects of Art Workmanship.

Akatsuka, Zittoku, Tokio-

126. A Hand Box, Decoration of Pine Trees and Storks.

Ando, Jubei, Nagoya—

 Pair of Vases, Cloisonné, decorated with Plum Blossoms.

128. Pair of Vases, Cloisonné, decorated with Wistaria.

129. Cigar Box, Cloisonné decorated with Peacock Feather.

Pair of Vases, Cloisonné, decorated with Ivy Vines.

131. Pair of Vases, Cloisonné, decorated with Bamboo and Fowls, Maples and Pigeons.

132. Cake Tray, Cloisonné, made in shape of Lotus Leaf, decorated with a Dragon Fly.

133. Vase, Cloisonné, decorated with Hosta Coerulea.

134. Vase, Cloisonné, decorated with Chinese Scroll Design.

Fujikawa, Shinzo, Kagawa-

135. Cake Box, carved and painted in Zokoku Style, Floral and Scroll Design:

Fnjiwara, Ihyoye, Osaka-

136. Carved Ornamental Center Table.

137. Paper Box and Writing Box and Writing Table, Landscape of Yoshino.

138. Incense Box, decorated with Wooden Fish Bell and Priest's Dusting Brush.

Funabashi, Iwajiro, Tokio-

139. Hand Box, Landscape, Arashiyama in Autumn Rain and Omura in Spring.

Funakoshi, Shunmin, Tokio-

140. Vase, Shibuichi Body, Silver Mouth and Shakudo Feet Ornamented with the Design of Pigeons, Maple Tree and the Sun.

Hattori, Tadasaburo, Nagoya-

141. Vase, Cloisonné, decorated with Plum Leaves.

142. Vase, Cloisonné, decorated with Nuphaea Japonica.

with Nuphaea Japonica.

143. Vase, Cloisonné, decorated

144. Vase, Cloisonné, decorated with Plum Blossoms.

145. Vase, Cloisonné, decorated with Hydrangea.

Hayashi, Kuhyoye, Tokio-

with Flowers.

146. Panel Landscape, Beach in the Morning.

Hayashi, Jisaburo, Ishikawa— 147. Vase, Porcelain, Wistaria dec-

 Vase, Porcelain, Wistaria decoration over the Glaze. 148. Vase, Porcelain, Landscape Decoration over the Glaze.

Hirano, Kichibei, Kioto-

149. Pair of Vases, Green Bronze, Ornamented with a Conventional Peony Design.

Hirata, Akiho, Tokio-

150. Designs for Dyeing. Ivy Design.

Iida, Shinshichi, Kioto-

151. Wall Hanging, Yuzen Dyed Cut Velvet, Wild Ducks on Sea.

152. Wall Hanging, Yuzen Dyed Cut Velvet, the Rapids at Night.

153. Wall Hanging, Embroidery, Crows in Snow.

154. Panel, Embroidery, Green Forest.

155 Wall Hanging, Embroidery, Lion.

156. Wall Hanging, Embroidery, Peacock,

lkeda, Gisuke, Fukui-

157. Carved Rectangular Stand.

Ikeda, Scisuke, Kioto-

158. Bowl, Satsuma Pottery, Chrysanthemum Decoration, over the Glaze.

159. Writing Box, Incense Utensils and Autumn Flowers.

Imperial Japanese Commission.
Tokio—

160. Writing Table and Writing Box, Landscape Decoration on Gold Ground.

 Paper Box and Writing Box, Landscape Decoration on "Hirame Nashiji," 162. Paper Box and Writing Box. Scattered Fans, Decoration on Polished Black Lacquer Ground.

163. Decorated Cabinet, Scattered Fans, made by Several Celebrated Lacquer Artists.

Ito, Tozan, Kioto-

164, Vase, Pottery, Wistaria Decoration, under the Glaze in White.

Japan Fine Art Association, Tokio-

165. Small Tea Jar, Bird's Feather Decoration, in the Polished Lacquer made by Shosai Shiravama of Tokio.

Jiomi, Yeisuke. Kioto-

166. Incense Burner, Bronze. Dragon.

167. Vase, Bronze, Winter Forest and Crows.

168, Cigar Box, Yellow Bronze, Landscape.

Kagawa, Katsuhiro, Tokio-

160. Hanging Placque, Bronze, ornamented with Herons and Willow Trees by River.

Kanamori, Shichiro, Toyama-

170. Vase, Bronze, Three Geese in one group.

171. Vase. Bronze, ornamented with Two Elephants.

Kanamori, Tohei, Toyama-

172. Incense Burner, Bronze, ornamented with Sea Birds.

Kataoka, Genjiro, Tokio-173. Small Box, Inlaid Mother-of-Pearl Decoration of Fans on

Polished Black Lacquer Ground.

174. Hand Box, Inlaid Mother-of-Pearl Decoration of Circular Phoenix, on Polished Black Lacquer Ground.

Kawara, Taro, Aichi-

175. Vase. Porcelain. decorated with Water Plant.

176. Vase. Porcelain. decorated with Grapes.

177. Vase, Porcelain, decorated with Japonica Petasites.

178. Vase, Porcelain, Decoration of Water and Maple Leaves.

170. Vase, Pottery, with Decoration of Morning Glory.

Kawashima, Jubei-

179A. Mongolian Invasion, tapestry.

Kinkozau, Sobei, Kioto-

180. Vase, Pottery, carved Ornamentation of Chrysanthemums.

181. Vase, Pottery, carved and pierced Ornamentation.

182. Vase, Pottery, carved and pierced Ornamentation Plum Trees in Blossom.

Kioto Pottery and Porcelain Co., Kioto-

183. Vase, Pottery, carved and pierced Ornamentation of Peonv Flowers.

Kioto Society for the Encouragement of Fine Arts, Kioto-

184. Paper Box and Writing Box, Spring Landscape Decorations, Exhibited by Naoyuki Kumagai in behalf of the Society.

Kumano, Tcitaro, Nagoya-

185. Vase, Cloisonné, decorated with Begonia.

186. Vase, Cloisonné, decorated with Two Carps.

187. Vase, Cloisonné, decorated with Two Carps.

188. Vase, Cloisonné, decorated with Two Carps.

189. Vase, Cloisonné, decorated with Two Carps.

Kurokawa, Yeisho, Tokio-

190. Vase, Shibuichi, Grapes Repoussé.

Matsubayashi, Sadashichi, Osaka— 191. Incense Tray, Decoration of Chrysanthemums and Paulo-

Mikami, Jisaburo, Kioto-

nia.

192. Hand Box, Autumn Grass and Country Cottage.

Mikami, Kozaburo, Kioto-

193. Hand Box. Bamboo Grove.

Miyagawa, Kozan, Imperial Court Artist, Kanazawa—

194. Vase, Porcelain, decorated with Plum Tree and a Line of Poetry.

195. Vase, Porcelain, decorated with Hydrangea.

196. Vase, Porcelain, decorated with Chrysanthemum.

197. Vase, Porcelain, covered with Crystalized Bronze.

198. Vase, Porcelain, covered with Crystalized Bronze Glaze.

199. Vase, Porcelain, Dragon Decoration.

200. Vase, Porcelain, Pine Tree Decoration.

201. Vase, Porcelain, Transmutation Glaze.

Mukai, Shigataro, Tokio-

202. Peacock and Peahen, Shibuichi.

Murata, Kinbei, Tokio-

203. Pair of Vases, Silver, ornamented with the Incrusted and Inlaid Pictures of Sumiyoshi Beach and Arashiyama.

Nagaoka, Matakichi, Tokio-

204. Incense Burner, Satsuma Faience, decorated with Medallions of Phoenix and Pierced Basket Work, made by Masataro Keida, of Kagoshima, Satsuma.

205. Vase, Porcelain, decorated with Landscape Made by Tomotaro Kato, of Tokio.

Nakamura, Sakujiro, Tokio—

206. Decorative Cabinet, Decoration of Autumn Flowers and Birds.

Namikawa, Yasuyuki, Kioto-

 Vase, Cloisonné, decorated with Flowers and Brocade Design.

Namikawa, Sosuke, Imperial Court Artist, Tokio—

 Panel, Wireless Cloisonné, decorated with Mount Fuji.

209. Panel, Wireless Cloisonné, decorated with Reeds and Wild Ducks.

210. Panel, Wireless Cloisonné. decorated with the Cloud and the Moon. Nakamura, Kinnosuke, Tokio-

211. Small Box, Dragon Cloud Decoration, made by Yukio Yukio, of Tokio.

212. Hand Box, Peony Decoration, Made by the same Artist.

Nishimura, Sozayemon, Kioto-

213. Wall Hanging, Embroidery, Warm Spring Day, Cherry Blossom and Sheep.

214. Screen, Embroidery, Pine Tree and Storks.

215. Screen, Yuzen Dyed Cut Velvet, Wild Ducks and Moon.

216. Panel, Embroidery, Spring.

217. Panel, Embroidery, Summer. 218. Panel, Embroidery, Autumn.

219. Panel, Embroidery, Winter.

Nishimura, Jihyoye, Kioto-

220. Screen, Yuzen Dved Silk Beauties of the Four Seasons.

221. Wall Hanging, Brocade, a Scene of Airing and Drying.

Okazaki, Scssei, Tokio-

222. Ornamental Water Basin. Green Bronze, ornamented with a Dragon.

Osaka Brouze Co., Osaka-

223. Mantis, Gold.

Saito, Masakichi, Tokio-

224. Group of Geese, Silver.

225. Hand Box, Decorations of Open Fan.

Sano, Kashichi, Tokio-

226. Writing Table, Paper Box and Writing Box. Flower Decoration made by Shosai Shiravama, of Tokio.

Shima, Sahioye, Osaka—

227. Vase, Bronze, Waves Decoration.

228. Vase, Bronze, Gold Fishes.

229. Vase, Bronze, Court Ladies in Field gathering Young Pine Trees.

Shinomura, Tamashiro, Kioto-

230. Designs for Dyeing. Floral Designs.

Shiogaki, Rihei, Toyama-

231. Incense box, Guribori, Lacouer.

231A. Incense Box.

Shoami, Katsuyoshi, Kioto-

232. Incense Burner, Iron, Wagtail and Reeds.

233. Trav. Shibuichi, Winter Scene, Pine Trees and Birds.

234. Vase, Shibuichi. Morning Scene, Crows Flying.

235. Vase, Copper Bronze, Demon Expeller.

236. Vase, Shibuichi, Bamboo in Snow.

Suzuki, Chokichi, Imperial Court Artist, Tokio-

237. Bear with Salmon, Bronze. 238. Tiger, Bronze.

Takayama, Yosokichi, Kioto-

239. Table Cover, Woven, Butterflies and Flowers of Four Seasons.

Takayama, Yoshikichi, Kioto-

240. Design for Table Cover.

Takata, Shinzo, Tokio-

241. Panel, Iron. Ascending Dragon, made by Shinkio Tsukada, Tokio.

Takito, Manjiro, Aichi-

242. Vase, Porcelain, decorated with Carved Leaves under Celadon Glaze.

243. Vase, Porcelain, decorated with Carved Scroll Design under Celadon Glaze.

244. Vase, Porcelain, decorated with Scroll Design in Blue under Glaze.

Tanaka & Co., Osaka-

245. Hand Box, Decoration of Atsumori playing Flute on Suma Beach.

Tanaka, Rishichi, Kioto-

 Panel, Embroidery, Pine Tree and Monkey.

247. Panel, Embroidery, Peacock.

Panel, Yuzen Dyed Cut Velvet, Group of Three Girls.

Terabayashi, Katai, Kioto—

249. Vase, Porcelain, decorated with Horse painted in Blue Colors under Glaze.

250. Vase, Porcelain, Covered with Crystalized Glaze.

Tomita, Koshichi, Kioto-

251. Hand Box, Decoration of Ferns, Lacquered and Painted by Nakaochi of Kioto.

Torii, Ycitaro, Kioto-

252. Table Cover, Yuzen Dyed Silk, Flowers of Spring and Autumn.

Tsujimura, Shoka, Tokio-

253. Screen Decoration of Airing and Night scene.

Tsukamoto, Jinbci, Nagoya—

254. Vase, Cloisonné, decorated with Flowers.

255. Pair of Vases, decorated with Bamboos.

Uno, Jinmatsu, Kioto-

256. Vase. Porcelain, decorated with Lotus Under Tea Color Glaze.

257. Vase, Porcelain, made in shape of Bamboo and covered with Crystalized Green Glaze.

258. Vase, Porcelain, decorated with Dragon and covered with Mustard Glaze.

Uyeno, Sciko, Kioto-

259. Design for Wall Paper.

Yabu, Mcizan, Osaka-

260. Bowl, Satsuma Pottery, decorated with Small Figures and Flowers.

261. Bowl, Satsuma Pottery, decorated with Festival Scene.

Yamada, Chosaburo, Ishikawa— 262. Vase, Iron, Waves.

263. Lion and Lioness, Iron.

264. Monkey, Iron.

Yanagiwara, Tsunehiro, Shimane— 265. Hanging Panel, Mosaic of

Kwannon on Rock before Waterfall.

266. Hanging Panel, Mosaic of Birds and Flowers.

Yokoyama, Akira, Ishikawa---

267. Carved Writing Box, The Pine Trees of Sumiyoshi Beach, carved by Aikawa Toyo of Kanazawa in Ishikawaken.

Zunicho, Sadakichi, Tokio-

268. Design for Lacquer Fire Screen.

CHAPTER III.

DEPARTMENT OF LIBERAL ARTS.

Introductory Remarks.

Printing.—The origin of Japanese printing goes back to the beginning of the Seventh Century, when Buddhist sutras were first printed in Japan. Since the Fourteenth Century, the classical works of China have been reprinted in a considerable volume. In the latter part of the Seventeenth Century, the reproduction of the Ukiyoye paintings began to prevail, and greatly assisted in the advancement of the art of printing. The type employed was made of wood, and was either movable or immovable. Movable wood type has been used since the ancient ages; movable metal type, however, was made in 1616 for the first time, the material used being copper.

The advent of the movable lead type in Japan dates from 1851, and its advantages were soon recognized. The method of manufacturing them has continued to improve; different styles of characters have been made more easily, and the art of printing has advanced to such a state of perfection that Japan is now able to rival the Western countries in the volume and quality of her printing. According to the statistics of 1902, there were 201 printing establishments and type foundries, exclusive of small establishments which do not employ steam or electric engines. The total number of employes of printing shops and type foundries, inclusive of small establishments, was estimated at 10,885.

Copper-plate printing, together with the Western art of painting, was brought to Japan by the Dutch late in the Eighteenth Century, and continued to improve until at the beginning of the new era, when the Government employed it in printing paper money. Soon after that the Government established a printing factory with thoroughly modern equipments, which has since served as the model printing establishment in Japan. Lithography was adopted at the beginning of the new era, and has since attained to a considerable degree of perfection.

The art of reproducing paintings, by means of wood-cut engraving, advanced rapidly after the beginning was made with the printing of *Ukiyoye* pictures in the latter part of the Seventeenth Century. At first this art was applied only to monochrome pictures, black or red. Since the middle of the Eighteenth Century, however, a method of printing paintings in polychrome has been adopted. The *Nishikiye*, or printed color-painting, shows the skill and dexterity realized in this

art several scores of years ago. In recent years the reproduction of old and classical paintings by means of this method has become very popular. Some very complex paintings have been reproduced, each by a process involving over one hundred printed impressions. The reproduction thus made can be distinguished from its original only after a close observation. This art has, indeed, no equivalent in any other country.

Photography, which made its first appearance in Japan some forty years ago, has since achieved a wonderful progress, and is now almost able to rival that of Western countries. The art of reproducing photographs has also advanced to a remarkable degree.

The progress on these lines of printing has swelled the volume of printed matter to a great extent. In 1901, some 18,990 volumes of books and booklets were printed, beside 1,181 periodicals and newspapers.

Medical Science.—Japan can justly boast of the especially rapid advancement she has made in a comparatively short period in the art of healing human disease. Most medical instruments and apparatus are now made at home as finely as in any advanced country in the West, and several new instruments have been invented by Japanese medical scholars. According to the statistics of 1901, the manufacturing chemists numbered 2,585, and the number of druggists and apothecaries stood at 24,224. Several effective medicines have also been invented and discovered.

Chemical Manufactures.—The manufacture of various chemical articles has considerably advanced, both in quality and quantity. The manufacture of matches and soaps deserves special note. Matches were first made in Japan in 1876, and, three years later, safety matches were invented. By the year 1880, the output of matches was so increased that the import of foreign matches was well-nigh stopped. In 1888, the association of match manufacturers was formed for the purpose of improving the quality of matches, since when the output of matches has been so increased that they now form one of the important exports of Japan.

The following table gives the figures of the output and export of matches for three years:

•	Outputs		Export	
V	olume.	Value.	Volume.	Value.
	Gross.)	(Yen.)	(Gross.)	(Yen.)
1900 21,	354,801	5,886,388	19,317,994	5,760,869
1901 32,	901,319	9,266,689	24,999,621	7,402,868
1902 27,	400,508	8,608,571	27,290,831	8,169,966

The centers of match manufacture are the Hiogo Prefecture and Osaka. The produce in the former was valued at 5,954,888 yen, and that of the latter at 1,695,808 yen, in the year 1901. Next to these places come the Prefecture of Aichi and of Hiroshima, and Tokyo.

The exports of soaps is as follows:

	Toilet	Soap.	Wash S	Soap.
	Volume.	Value.	Volume.	Value.
	(Gross.)	(Yen.)	(Gross.)	(Yen.)
1900	464,405	137,296	612,959	33,151
1901	697,694	211,852	1,091,166	54,614
1902	519,597	172,150	623,649	29,256

Paper Manufacture.—The manufacture of paper in Japan began as early as the Sixth Century. During the Middle Ages this industry made a remarkable progress, and exquisitely fine papers of greatly varied kinds were produced, Hosho, Torinoko, Mino, Kosugi, Ganpi. and Kashiwabara, being some of the important varieties. Daintily ornamented papers were also produced. The materials used are the skins and fibers of various plants, of which the Koji makes the best quality of paper. The centers of paper manufacture are Tosa, Mino, Yuwanii and Suruga.

The native Japanese paper is entirely different from that of foreign countries in its process of manufacture and its materials, and has many characteristic qualities for which Western papers have no equivalent. It is soft but strong, fine but elastic and durable. Hence, our papers furnish fine materials for panels and screens, lanterns and parasols, fans and scrolls, and many other things. The superior qualities of our papers have been recognized by foreigners, and such papers as *Usuyo*, *Hosho*, and napkin papers, have long been prized in foreign countries.

The method of manufacturing Western papers was imported to Japan about 1872. Following the example set by the Government Printing Department, many paper manufacturers commenced to make paper after the Western method. Ornamented hand-made papers possessing durable quality have been lately produced by several factories.

Factories of original Japanese papers are generally on a small scale, the work being almost exclusively done by hand. Hence the number of work shops was as large as 63,914 in 1902.

On the other hand, the production of Western papers is carried on on a large scale by means of power engines. In 1902, the number of paper manufacturing companies of this class was 12; that of factories and workshops, 82, with 75 engines of 16,163 horsepower in all; the aggregate amount of capital being 8,471,775 yen. The volume of output in the same year was 102,143,195 pounds, valued at 7,150,024 yen.

The following table shows the amount and value of outputs of various papers for two years:

	Vol	ume.	V	alue.
Kinds of	1901.	1902.	1901.	1902.
paper.	(Pound.)	(Pound.)	(Yen.)	(Yen.)
Western paper	1,840,560		251,898	240,945
Ganpi	26,146	19,566	22,972	15,087
Wall Paper			76,089	103,603
Torinoko	45,595	204,095	41,982	156,775
Usuyo		385,100	328,324	283,257
Toyo	437,974	516,777	140,518	145,633
Paper napkin		149,646*	153.752	188,298
Others			640,765	651,990
Total	• • • • • • • • •	• • • • • • •	1,659,300	1,785,580

^{*}Unit of M sheets.

Exhibits.

NOTE:—The entire exhibits belonging to the Department of Liberal Arts, except No. 1, Group 15, are installed in the Palace of Manufactures.

GROUP 15.

Typography.

- Hoshi, Hajime, Tokyo— Apparatus of Japanese newspaper printing.
- Kokkwasha, Yazaemon-cho, Kyobashi-ku, Tokyo—
 Colored printing on wood.
- Yasuike, Keizaburo, Tsukijima, Kyobashi-ku, Tokyo— Printing on tin plate.
- 4. Yoshikawa, Hanshichi, Kyobash-ku, Tokyo—

Picture frames.

GROUP 16.

Photography.

- Asakura Gensuke, Niigata-Ken—
 Photographs.
 - i notograpno.
- Asanuma, Shokwai, Hon-cho, Nikonbashi-ku, Tokyo—
 Cameras.
 - Cameras.
- 3. Ichida Sota, Moto-machi, Kobe—
- Photographs.
- 4. Kanai Yaichi, Niigata-Ken— Photographs.

Photograph Kwansai. Printing Co., Futatabi-suji, Kobe—

Photograph printing.

6. Nagasawa Kiyosuke, Hanasaki-cho, Yokohama-

Albums.

7. Matsunaga Gakuro, Nigiwaicho. Yokohama-

Photographs. Photograph album.

8. Midzuno, Hanbei, Minami-otamachi, Yokohama-

Photograph frames. Photograph book case.

9. Mikami Takatoshi, Kyomachibori-dori, Osaka-

Photographs.

Mitsumura Riso, Kitanagasadori, Kobe-

Photographs.

Miyata Totaro, Benten-dori, Yokohama-

Album.

12. Miyauchi Ryosuke, Nihonbashi-tori, 4 Chome, Tokyo-Photograph frames. Photograph book.

13. Ogava Isshin, Hiyoshi-cho, Kyobashi-ku, Tokyo-Photographs. Photograph album. Photograph printing books.

14. Photograph Postal Card Co., Benten-dori, Yokohama-Photograph postal cards.

Sugiyama Shiunzo, Sioi-cho, Yokohama—

Photograph album.

Tamamura Yasusaburo, Benten-dori, Yokohama-

Photograph frames.

Yeminami Nobusaburo, Benten-dori, Yokohama-

Photograph frames.

Photograph opera case.

Opera photographs and eye-glass.

Yokohama Shashinkwai, Otamachi, Yokohama-

Photograph frames.

GROUP 17.

Books and Publications-Book Binding.

1. Fujii Magobei, Gokomachidori, Kyoto-

Picturé books:

Jyakuchu "Gafu."

"Mivakonohana."

"Shomeika Kacho Gafu."

"Shomeika Sansui Gafu."

"Shoven Bijin Gafu."

"Miyako Hakkei."

"Fuso Gakan."

2. Furukawa, Teinosuke, Sonesaki. Osaka-Pictures.

Takejiro, Hon-3. Hasegawa mura-cho, Yotsuya-ku, Tokvo-

Books.

4. Kokkwasha, Yazayemon-cho, Kyobashi-ku, Tokyo-

"Kokkwa" in Japanese.

"Kokkwa" in English.

Wood-cut reproduction of picture (Buddha).

Wood-cut reproduction of picture (flowers, birds and persons).

 Murakami Kanbei, Higashinotoin-dori, Kyoto—

Picture books:

Japanese customs, memory of the style in ancient times.

Collection of postal cards, with picture.

Picture book:

Images of child.

Seiho Shugacho.

"Nanso Gaven."

6. Shinbishoin, Nicho-machi, Shitayaku, Tokyo—

Collection of pictures by Korin school.

7. Tajima Shiichi, Shinbitaikwan, Tokyo—

Wood printing of "Kujyaku Myowo."

8. Yamada Naosaburo, Teramachi-dori, Kyoto—

Art magazine, "Bijutsu Kai." Picture book, "Shinbijutsu Kai." Collection of design in Tennen period.

Design of Japanese overcoat in Tennen period.

Picture books:

Hyakutsuru.

"Chigusa."

"Kufushu."

"Kwairo."

"Seikwa."

A hundred grasses and flowers. Collection of the pictures of chrysanthemums.

"Yohu Gacho."

"Naminomaki."

"Urono-megumi."

"Hogacho."

Collection of designs.

Picture books:

"Dokusho-Kikwan."

"Chiomi-gusa."

"Unaino-tomo."

Collection of the pictures on fan.

Pictures of six sages.

Collection of designs by Shoun.

"Kyosome Nishiki."

"Shikino-yosoohi."

"Shinmoncho."

"Unkwashu."

Designs of Kyobi.

Designs of "orimono."

Designs of "namimon."

Collection of shells of Genji. Samples of design.

Collection of pictures by Korin school,

"Seiyei."

"Fukiyose."

"Udzuraginu."

"Nihoi."

Design of porcelain.

Design of butterflies. Glory of the nation.

New design.

"Oyo-manga."

"Chigusano-tane."

Designs of industrial arts.

"Kigae."

"Kokkei dzuan."

"Hobun gacho."

"Chikudo-Gafu."

"Seiho-Gafu."

"Kwako-Gafu."

Selection of thirty artists.

"Shunkyo-Gafu."

"Kitano-Yema."

"Shingayen."

Fine art and industrial art.

"Sakigake."

"Sentetsu-iho."

"Daraku-dzuye."

Collection of the pictures by Shonen.

Collection of a hundred pictures by Gochikudo.

Ancient fine art.

Scenery of old capital.

Of mountain Fuji, by Seiho.

Collection of animals.

Scenery and products of Kyoto.

Selection of pictures.

Picture frames with pictures printed with wood cut, and

Picture frames with the printed pictures.

Wood printing of a group of butterflies.

q. Yoshikawa Hanshichi, Minamidenma-cho, Kyobashi-ku, Tokyo-

Collection of decorations.

Diagram illustrating the Imperial carriage.

GROUP 19.

Instruments of Precision, Philosophical Apparatus, etc.-Coins and Medals.

1. Imperial Mint, Osaka-Coins. Medals.

2. Moriya Sadakichi, Toyamacho, Kanda-ku, Tokyo-

Steelyards.

Weights.

Weighing machine.

Lever, wooden.

Lever, bone.

GROUP 20.

Medicine and Surgery.

1. Horiguchi Yakichi, Kitafutaba-cho, Honjo-ku, Tokyo-

Portable dental instruments.

2. Ito Takufu, Hongo, 5 Chome, Tokyo-

Model of the anatomical dissection of human body.

Model of the skeleton of human body.

3. Mayeda Shinkichi, Higashimisuji-machi, Asakusa-ku, Tokyo-

Operating instrument.

"Eye" knife.

Surgical instrument.

Surgical knife.

4. Shirai Matsunosuke, Doshomachi, Osaka-

Bow saw.

Metacarpal saw.

Bone forceps.

Bone shears.

Rib shears.

Perforating cranial forceps.

Bandage shears.

Artery clamp.

Artery forceps.

Sharp curette.

Needle holder.

Tongue forceps.
Kashimura's trocar.
Bowel clamps.
Uterus speculum.
Uterus hook.
Uterus sharp curette.
Forceps, double hooked.
Forceps, single hooked.
Hypodermic syringe.
Uterus speculum, bivalve.
Surgical instrument.

GROUP 21.

Musical Instruments.

 Nippon Musical Instrument Manufacturing Co., Hamamatsu, Shizuoka-Ken—

Piano and organ.

GROUP 23.

Chemical and Pharmaceutical Arts.

 Ando Fukutaro, Kakigara-cho, Tokyo—

Tooth powder.

2. Baba Jiutaro, Nagoya-

Evaporating dishes.

Crucible.

Mortar.

Infusion jar.

Retort.

Boiling flask.

Pus basin.

Porcelain plate for color testing.

Ointment tile.

Water reservoir.

Ointment vessel.

Ointment jar.

Bed pan.

Mortar for cocoon.

China basin for photographic use.

Decoction jar.

Funnel.

Boat. Sterilizer.

Stermzer.

Mercury trough.

Sulphuric acid desiccator.

Spoon.

3. Fukushima, Benjiro, Osaka-

Lacquers.

Samples of lacquers.

4. Furukawa, Teinosuke, Sonezaki, Osaka—

Fire-work pipes.

Fireworks.

5. Hagihara, Tatsuzo, Nishishinka-wara-machi, Osaka—

Toilet soaps.

6. Harima, Koshichi, Higashi-Kawasaki-cho, Kobe—

Matches.

7. Harumoto, Jiusuke, Doshomachi. Osaka—

Toilet soaps.

8. Hino, Shosaburo, Higashi-Shimizu-machi, Osaka—

Charcoal powders for the use of portable stove to warm the chest.

Charcoal powders for the use of portable stove to warm limb.

Portable stove to warm the chest. Charcoal powders in bar for the

use of portable stove to warm the chest.

9. Hirao, Sanpei, Bakuro-cho, Nihonbashi-ku, Tokyo—

Tooth powder.

Inouve, Sadajiro, Honden-Sanban-cho, Osaka-Toilet soaps.

Soft Medical Kobayashi Wafer Manufacturing Co., Mive-ken-

Soft medical wafers.

Kobayashi, Tomijiro, Yanagiwaragashi, Kanda-ku, Tokvo-

Tooth powder.

13. Kondo, Kichitaro, Yamashitacho, Yokohama-

Fire-works.

Animal figured balloon. Samples, catalogue, etc.

14. Nagase, Tomiro, Bakuro-cho, Nihonbashi-ku, Tokyo-

Tooth powder. Toilet powder. Toilet soaps.

15. Naoki, Masanosuke, Kusunoki-cho, Kobe-

Toilet soaps.

- 16. Okada, Keitaro, Ibaraki-ken-Illustration of fire-works.
- 17. Okamoto, Sensuke, Gokomachi-dori, Kyoto-Lacquer.
- 18. Saito. Kahei. Honmachi, Osaka— Lacquer. Lacquered plates.
- 19. Saito, Kichijiro, Yoko-amicho, Honjo-ku, Tokyo-Tooth powder.

20. Saito. Rihei. Shiwo-machidori. Osaka-Lacquer.

Lacquered plates.

- 21. Shima, Toyosaburo, Dojimaura I-chome, Osaka-Medical wafers.
- 22. Shimidzu, Tasaburo, Fushimimachi, Osaka-Insect powder.
- 23. Suzuki, Saburosuke, Kanagazva-ken-

Potassium iodide.

Iodoform.

Refined iodine.

Raw iodine.

- 24. Takamatsu, Kiushiro, Higashi-Hirano-machi, Osaka-Glue.
- 25. Takigawa, Benzo, Kusunokicho. Kobe-Toilet soaps.
- Tanahashi, Tsuii. Minami-Ota-machi, Yokohama-Fire-works.
- Yasuhara,Yazo, Sonezaki-Shinchi, Osaka-Fire-works.
- 28. Yasuzumi, Isaburo, Hiranomachi, Osaka-Insect powder.

GROUP 24.

Manufacture of Paper.

Chikugo Paper Manufacturing Association, Fukuokaken-"Toyo" paper.

"Chiyo" paper.

"Senzai" paper. "Hosho" paper.

Parasol paper. "Kyoka" paper.

2. Goto, Ukichi, Gifu-ken-Copying paper. Tissue paper.

3. Harada Paper Manufacturing Co., Shidzuoka-ken-Copying paper. Tissue paper.

Kunitaro, Gifu-4. Hayashi, Ken-Copying paper. Drawing paper. Tissue paper.

Hayashi Paper Mill, Kochi-Ken-Copying paper. Tissue paper. Letter paper. Bookkeeping paper. Drawing paper.

- Horiki, Chiutaro, Miye-Ken— Wall paper.
- 7. Imai, Hyoshiro, Gifu-Ken-Copying paper. Tissue paper.

8. Imperial Government Paper

Mill, Tokyo-Specimens of the water-marking. Bank-note paper with watermark. Bond paper with water-mark. Military Department.

Map paper used in the Japanese Kyokushi (Japanese vellum).

Paper for postal stamps used by the Japanese Government.

Printing paper.

Postal card paper used by the Japanese Government.

Wrapping paper.

9. Ino Paper Refining Co., Kochi-

Hand-made Japanese paper.

Copying paper.

Drawing paper.

"Teison" paper.

Printing paper. Tissue paper.

Letter paper.

10. Inui, Kyohachi, Shidzuokaken-

Printing and wrapping paper. Printing and copying paper.

Drawing paper.

Tissue paper.

Bond paper.

Paper with transparent design. Letter paper and envelopes.

Ishikawa, Daikichi, Yehime-II. ken—

Copying paper. Japanese paper.

12. Ishizaki. Kiuma. Yehime-Ken-

Copying paper. Tissue paper.

Japanese paper.

Japanese vellum paper.

Tracing paper.

13. Japan Paper Industry Associa-

Map showing the sources of the raw materials of paper.

Illustration of the process of manufacturing the Japanese paper.

Articles showing the different stages of manufacturing process of Japanese paper. Samples of paper fabrics and papers.

14. Japan Paper Trading Co., Hyogo-Ken—

Copying paper.
Tissue paper.
Drawing paper.
Japanese vellum paper.
Paper, long sheet.
"Wato" paper.

Kagi Paper Manufacturing
 Co., Kagi, Formosa—
 Japanese paper.
 Japanese tissue paper.
 Material for manufacturing pa

16. Kano, Yoyemon, Ibaraki-Ken— "Teison" paper.

 Kawabe, Seishiro, Tomotsucho, Osaka—

Paper made of pawllonia imperialia.

 Kawamura, Kanyemon, Kochi-Ken— Copying paper.

 Komoda, Ryoichi, Yehime-Ken—
 Envelopes.

20. Komeda, Tokuhei, Yehime-Ken—
 Copying paper.
 Tissue paper.
 Printing paper.
 Wrapping paper.

Japanese paper. Letter paper. Napkin paper.

21. Konishi, Yasujiro, Shidzuoka-Ken—

Copying paper.

22. Kubota, Matsukichi, Kaji-cho, Kanda-ku, Tokyo—

Copying paper.

23. Maruichi Co., Kochi-Ken—Copying paper.Tissue paper.Printing paper.

 Mitsuhashi Asajiro, Junkeimachi, Osaka—
 Napkin.

 Matsui, Sanjiro, Gifu-Ken— Copying paper.
 Tissue paper.

26. Matsuoka, Keigoro, Gifu-Ken— Copying paper. Tissue paper.

27. Meikosha, Kawara-cho, Asakusa-ku, Tokyo—

Paper with transparent design.

28. Miye-Ken Cigarette Case
Manufacturing Association,
Miye-Ken—

Imitation leather made of oiled paper.

 Mukaida Paper Manufacturing Co., Tochigi-Ken—

Napkin paper. Tissue paper. Copying paper. 30. Nagano, Genkichi, Kochi-Ken—

Tissue paper. Copying paper. "Shoyin" paper.

- 31. Nakata, Shikaji, Kochi-Ken—Copying paper.
 Tissue paper.
- Oishi, Takichi, Miyagi-Ken— Paper bags for containing cocoons.

Paper bags for preserving soldiers' cloth.

 Ota, Genzayemon, Shidzuoka-Ken— Hand-made paper. Card.

34. Sanuki Paper Manufacturing Association, Kagawa-Ken— Napkin paper made of tissue paper. Napkin paper made of straw paper. Copying paper.

Shidzuoka-Ken Paper Industry Association, Shidzuoka-Ken—
 Sized paper.
 Printing paper.
 Wrapping paper.

36. Shimidzu, Ushimatsu, Hyogo-Ken— Wall paper.

37. Shimoyama, Yeikichi, Kumamoto-Ken—

Copying paper.

Copying paper.

38. Shinowara, Arakichi, Yehime-Ken—
Copying paper.
Tissue paper.
Bookkeeping paper.

39. Shinowara, Sakutaro, Yehime-Ken— Copying paper. Tissue paper. Japanese vellum paper. Letter paper. Napkin paper.

40. Suda & Co., Gifu-Ken— Drawing paper. Copying paper. Napkin paper. Paper made of pawllonia imperialia.

41. Takaoka Copying Paper Manufacturing Association, Kochi-Ken—

Copying paper.

42. Takci Paper Trading Co., Gifu-Ken—

Copying paper. Tissue paper. Drawing paper. "Chohi" paper. "Mitsumata" paper.

43. Takei Paper Trading Co.— Napkin paper. Table-cloth paper.

Doily paper. Cake paper.

Paper made of pawllonia imperialia.

Paper made of pawllonia imperalia, with design.

Paper made of pawllonia imperialia and cinder.
Paper made of "zindai" cinder.
Paper made of pawllonia imperialia, long rolled.
Advertisement paper.

44. Tanabe, Kotaro, Yehime-Ken— Copying paper.

 Terada, Jisaburo, Tera-machidori, Kioto— Tissue paper.

Writing paper for poetry.

46. Terao, Saibei, Miye-Ken— Napkin paper.

47. Teshigawara & Co., Gifu-Ken—

Advertisement paper.
Design tissue paper.
Paper napkin.
Printed paper for window glass.
Tissue paper doilies.
Paper doilies.

48. Tomitagawa & Co., Gifu-Ken-

Copying paper.

49. Tosa Paper Industry Association, Kochi-Ken—

Cross-beam for the use of manufacturing copying paper.

Bamboo mat for the use of manufacturing copying paper.

Notes on the process of manufacturing copying paper.

Notes on the process of manufacturing tissue paper.

50. Tosa Tissue Paper Manufacturing Association, Kochi-Ken—

Tissue paper.

 Yamamoto, Seizo, Honzaimoku-cho, Nihonbashi-ku, Tokyo—

Leather paper.

52. Yasuda, Toyohachi, Gifu-Ken— Copying paper.Tissue paper.

53. Yechizen Paper Manufacturing Association, Fukui-Ken—

"Fosho" paper, broad.

Private postal cards with transparent design.

"Dai Kodan" papers.

"Teison" paper. Copying paper.

"Koki" paper.

"Midzutama" paper.

"Sekka" paper.

Japanese vellum paper, with transparent design.

Hand-made printing paper.

Letter paper.

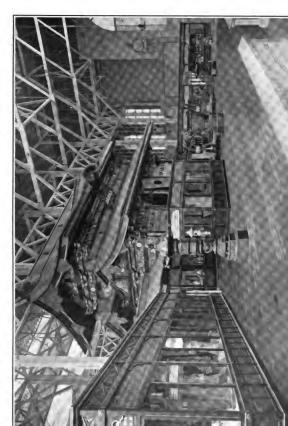
Envelope.

54. Yoshino Paper Industry Association, Nara-Ken— Tissue paper.

GROUP 27.

Architectural Engineering.

 Okura, Naojiro, Nara-Ken— Model of building.



ENTRANCE TO THE JAPANESE SECTION-PALACE OF VARIED INDUSTRIES.

CHAPTER IV.

DEPARTMENT OF MANUFACTURES.

Introductory Remarks.

Previous to the beginning of the new era, the manufacturing industries of Japan were carried on by means of manual labor. The genius and skill peculiar to the nation suited to produce artistic manufactures of varied natures which had long been esteemed in foreign countries. The introduction of Western civilization during the last thirty years has been working out a revolution in the method and organization of industry. Powerful engines have been substituted for manual labor, and the factory industry on a large scale has been displacing the house industry of the old fashion. The ingenuity and adaptability of Japanese people have been adjusted to the new conditions of manufacturing industry, and many valuable products and inventions have been made by the application of advanced sciences and machineries. Greater degree of industrial skill has been attained, the cost of product greatly reduced by the utilization of improved methods. and the wider dissemination of technical knowledge has been cooperating to improve the quality of manufactures. A greater perfection of financial system and of legislation relating to industrial administration, and the remarkable increase of capital, have also been assisting in the advancement of our industry. The number of factories and workshops, which had been 2,984 in 1892, and 4,691 in 1808, was increased to 7,821 by the year 1902. In 1898, manufacturing companies numbered 1.367, with the aggregate capital of 143,617,530 ven; whereas, in 1902, the number of companies increased to 2,427, and the amount of capital to 222,120,193 yen.

I. Metal Works.

One of the most prominent metal works of Japan is that wrought in copper or its alloys. Among the most important localities producing copper ware are Kanazawa, Takaoka, Osaka and Kyoto, the products of which have been exported to Europe and America in a considerable volume. Copper ware inlaid with silver and gold are especially valuable. There are many kinds of alloys formed of a basis of copper with varying admixtures of silver and gold and other metals. Especially noteworthy among these alloys are bronze, sentoku, shinchu, sacvari, shakudo, shibuichi, etc., which are made into various kinds of orna-

ments for alcoves. According to the statistics for 1902, copper works produced in various localities were valued as follows:

Locality.	Value.
Osaka.	1,902,263
Kyoto.	690,376
Takaoka and Toyama	455,033
Yechigo.	141,179
Kanazawa.	
Aichi,	72,918
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The manufacture of copper ware is carried on by means of manual labor and on a small scale. In 1902, the total number of the manufacturers was 1,945, employing 8,698 men. The following table shows the annual output of copper ware for four years:

	Value of
Year.	output.
1899	
1900	1,106,907
1901	
1902	3,487,541

Beside the copper works of the kind above mentioned, Japan has developed the art of making many miniature ornaments wrought in gold or alloys. This art primarily originated in the making of various small ornaments appertaining to the Japanese sword, such as tsuba, or guard, and menuki, and various adornments attached to the Japanese helm. Since the abolition of feudalism, this art has practically become obsolete. The time had not been long, however, before it took a new form to adapt itself to the needs of modern taste. Many cunningly wrought metal ware, engraved, carved, or cast, for various purposes of ornament, have become appreciated both at home and abroad. The export of gold and silver works of this class increased from 60,655 yen in 1900, to 181,340 yen in 1902.

An alloy, formed of a basis of antimony with admixtures of various metals, has been used to manufacture various household utensils and alcove ornaments which have found customers in foreign markets. Small ornaments for alcoves, flower vases, small dishes, caskets and toys are the principal forms of antimony work. The largest antimony-ware producing town is Tokyo, second to which is Osaka. The value of the export of antimony works for 1901 and 1902 is 80,769 yen and 91,110 yen, respectively.

II. Matting and Rug.

Matting.—The ordinary plain matting has been manufactured for domestic use for many centuries, but the fancy matting is comparatively of a recent origin. A considerable improvement was made upon this industry in 1876, and in 1881 our matting began to find market in foreign countries. At first the province of Okayama was the only place where the fancy matting was manufactured. But in recent years the same industry has been developed in Hiroshima, Fukuoka, Kagawa and Ishikawa. Since 1894, improvement on this manufacture has been especially remarkable. More than forty kinds of advanced machines for the weaving of mats have been invented, some of which can almost rival the cloth-weaving machine in their workmanship and ingenuity. Numerous novel designs have been devised, producing mattings with beautiful figures and of fine quality. The following table shows the value of matting produced in five principal localities in 1902:

Locality.	Va	lue (ye
Okayama		3.778,
Hiroshima		725,
Fukuoka		377.
Kagawa		133,
Ishikawa		120,

Again, the annual export of mats during the four years following 1800 is to the following value:

Year.	Value (yen).
1899	2,460,151
1900	3,039,795.
1901	4,960,487
1902	5,262,097

Rug.—The Japanese cotton rug was for the first time made about the middle of the past century, and has been exported since 1878. Rugs made of such material as wool, silk, and flaxen fiber began to be manufactured later. In recent years, the annual export of the cotton rug has been to the value of 1,150,000 yen.

III. Lacquered Ware.

The lacquered ware has been produced in Japan since the ancient period. The art of inlaying in the lacquer ware figures and scenic views with gold and silver was invented as early as the Eighth Century. From the Fifteenth Century the *takamakiye*, a luxurious species of gold and silver lacquered ware, was produced. Since that time various kinds of art lacquered wares have been made, and many new designs and styles have been invented. Plain lacquer ware have been produced since the middle ages in such localities as Wajima, Yamanaka, Aidzu, Takayama, etc. In recent years, Shidzuoka and Kuroye have also become important in making lacquer ware. At present, Tokyo, Kyoto and Kanazawa are most famous in manufacturing beautiful gold and silver lacquer ware. Various new colors of lacquer have been added lately, and more complicated and fine figures have been wrought upon the ware.

According to the statistics of 1902, the total output of lacquer ware was valued at 5.538,466 yen, of which 889,079 yen was the value of export. Its manufacturers numbered 5,266, employing 16,831 men and women. The value of the annual output and export of lacquer ware is shown in the following table:

	Value of	value or
Year.	output.	export.
1899.	 5,640,228	988,662
1900.	 6,284,318	1,066,390
1901.	 5,769,059	994,654
1902.	 5,538,466	889,079

IV. Porcelain and Earthenware.

Although Japan imported from China the art of porcelain manufacturing, the ingenuity and skill of her people have thoroughly assimilated this adopted art to her idea and taste, and created in time the style and design entirely distinct from those of Chinese porcelain. It was in the Thirteenth Century that the Chinese porcelain was imitated in Japan. In the Sixteenth Century an improved style of the Chinese porcelain was introduced to Japan. In the meantime, a certain number of Koreans emigrated to Japan and commenced to produce the porcelain after their own method and style. It was about this period that the characteristic Japanese porcelain began to be made in such localities as Owari, Shigaraki, Karatsu, Mino and Bizen. In the latter part of the same century, a number of feudal lords, who took part in the expedition to Korea, brought to Japan the Korean porcelain of fine quality, which greatly assisted in starting the manufacture of porcelain in such localities as Satsuma, Hagi, Takatori, Hirato, etc. In the Seventeenth Century, the province of Hizen began to produce purely white china, and the china known as Arita and Imari, was improved considerably. In the latter half of the same century many celebrated porcelain artists appeared in Kvoto, whose products were known by the names of Kiyomidzu and Awata. The Kutani porcelain also developed about that time from the Arita porcelain. The Seto, Idzumo and Manko porcelains originated in the past century.

Since the opening of the new era, the Japanese earthenware and porcelain have undergone considerable improvement. Even Tokyo and Yokohama, which did not produce any porcelain worthy of special note, can now justly pride themselves on manufacturing valuable kinds of porcelain. The reputation of Kyoto, Arita and Sedo as porcelain producing towns is still high, while the *Kutani* and *Satsuma* porcelains are famous by their fine and skillful workmanship. Considered from the volume of the output, the *Seto* porcelain stands in the first rank and is followed by the *Mino* porcelain. Various valuable improvements have been made on the already famous *Shippo* cloisonne, which are mainly produced in Nagoya, Kyoto and Tokyo. After the Paris Exposition, in 1868, the *Shippo* has been duly esteemed by European people, and in 1901, its export was valued at 250,716 yen. The Japanese cloisonne has the characteristic entirely distinct from that of foreign cloisonne.

The following table shows the value of the annual product and export of our porcelain and earthenware for four years:

	Value of	Value of
Year.	output.	export.
1899	5,867,833	2,181,336
1900		2,471,904
1901	6,935,176	2,491,668
1902	6,911,301	2,461,544

V. Fabrics and Embroidery.

Cotton Fabrics.—The manufacture of cotton cloth advanced rapidly after the importation of the cotton yarn and the introduction of spinning industry. The prefectures of Aichi, Gifu and Saitama are leading cotton cloth manufacturing centers. Wakayama and Kyoto produce a considerable amount of cotton flannel of fine quality. The manufacture of cotton cloth is carried on, on a small scale, by means of manual labor.

Silk Fabrics.—The art forms of silk tissues can be seen in the velvet, crepe and embroidery, all of which are made by hand with fastidious care and extraordinary dexterity. The designs for embroidery and silk tissues are painted by famous artists. Kyoto is identified with this art industry. Kiru, Ashikaga and Hachioji are also important towns of silk manufacture. The habutai of Fukui, kaiki of Kai, and

the *hakata* of Chikuzen are kinds of silk tissues especially prized at home and abroad.

Woolen Cloth.—The manufacture of woolen cloth in Japan is of recent origin. The muslin, flannel and other woolen ctoths, however, are now produced in considerable volume. The manufacture of muslin has been especially developed.

Statistics.—According to the statistics of 1902, the total number of textile factories stood at 1649, and that of weaving shops in private houses was 302,267, the aggregate number of working men and women being 772,964. The output of textiles in the same year was valued at 151,187,473 yen, of which the export was to the value of 37,013,920 yen. Leading fabrics for export at present are the habutai and silk hand-kerchief and the cotton crepe and flannel.

The following table shows the value of the annual output and export of textiles for four years:

	Value of	Value of	Export.
Year.	output.	Silk.	Cotton.
1899	174,997,743	110,893,609	2,597.979
1900	178,234,498	22,922,207	5,723,669
1901	153,595,919	29,578,532	5,461,972
1902	151,187,473	31,032,379	5,981,545

VI. Raw Silk.

Since the Government established a model silk spinning factory, in 1872, this industry has made remarkable progress. Many factories have been established, year after year, spinning machines and instruments improved and invented, and the method of sericulture has been greatly reformed. The government inaugurated an experimental sericultural station in Tokyo and silk inspection stations in Yokohama and Kobe for the purpose of improving the quality of silk and of preventing the export of adulterated silk. At present a silk inspection station is found in almost every important silk manufacturing town.

The following table shows the growth of silk manufacture during the four years succeeding 1899:

Y	ear.		Volume of export (kin).	Value of output (yen).
1899.		 10,964,013	5,946,911	62,627,721
1900.		 10,973,444	4,630,903	44,657,229
1901.		 10,940,169	8,697,706	74,667,331
1902.		 11,205,800	8,078,166	76,859,478

VII. Cotton Yarns.

The cotton spinning after the Western method was introduced to Japan in 1861, since when numerous spinning factories have been established. The volume of the output of cotton yarn has been so swelled that at present it forms one of our important exports, beside fulfilling domestic demand. Since the abolition of customs duty upon the raw cotton, the spinning industry has especially developed. At present there are 80 factories with a capital of 34,459,082 yen. The total value of the output in 1902 was 38,458,947 yen, of which 19,911,523 yen was the value of export.

The following table shows the amount of annual output and export of cotton yarn for four years:

	Volums of out-	Volume of ex-	Value of ex:
Year.	put (kwan).	port (kwan).	port (yen).
1899	43,052,402	102,360,832	28,521,438
1900.	32,419,641	62,619,660	20,589,263
1901	33,115,829	62,751,795	21,465,572
1902	38,458,947	59,244,283	19,901,523

VIII. Straw and Chip Braids.

Until recently, the small village of Omori was the only place where the straw braid was produced. It was after the opening of the new era that Japan improved this industry and commenced to export the straw braid to Western countries, where it has been generally appreciated on account of the beautiful color and fine quality characteristic to the Japanese straw. The prefectures of Okayama, Aichi and Kagawa are the most important localities of this industry. The annual value of output and export of straw braids is as follows:

	Value of	Value of
Year.	output.	export.
1900	2,926,127	4,025,159
1901	2,516,219	2,989,836
1902	2,377,349	2,938,858

The chip braid has been recently manufactured from shavings of various kinds of wood. Some of fine shavings are made as thin and light as paper. The art of putting various artistic figures on chip has also been invented. Thus, the chip braid has found considerable favor in Western countries. The total value of its output in 1900 was 25.525 yen; in 1901, 65,451 yen; and in 1902, 378,431 yen.

IX. Miscellaneous.

Besides the articles described in the foregoing pages, the following articles have also been exported: Shell buttons, leather works, fans, umbrellas, brushes, toys, ivory and tortoise-shell works, and bamboo works. According to the statistics of 1902, the export of these articles was to the following value:

Umbrella	
Umbrena I,	037,926
Fan	798,156
Brush	626,328
Toy	385,760
Button	371,869
Knitwork underwear	324,430
Leather work	314,412

Exhibits.

GROUP 28. Stationery.

(Palace of Manufactures.)

 Fukita Yosuke, Honkokucho, Nihonbashiku, Tokio—

Drawing brushes. Japanese solid ink.

2. Ida Tokubei, Oimatsucho, Osaka—

Japanese solid ink.

 Inoue Kanctaro, Muramatsucho, Nihonbashi-ku, Tokio—

Drawing instruments.

- 4. Ito Shobci, Nagoya— Writing brushes. Drawing brushes.
- Kamada Yeizo, Bakurocho, Osaka—
 Copying books.
 Copying papers.
 Drawing papers.
 Account book papers.
 Papers.

- Mayekawa Yohei, 1 eramachidori, Kioto—
 Pen wipers.
- Mizutani Karoku, Nara-ken— Writing brushes.
- Nakamura Zenyemon, Fuyacho-dori, Kioto— Japanese solid ink.
 Drawing brushes.
- Oka Ihei, Tamayacho, Osaka—

Pencil sharpeners.

- Shibukawa Kikusaburo, Sakumacho, Kanda-ku, Tokio— Drawing instruments.
- Suzuki Tokujiro, Minamikiuhojimachi, Osaka— Painting brushes.
- 12. Takei Paper Co., Gifu-ken—Copying books.
- Tsutsuminaka Unosuke, Rokkakudori, Kioto—
 Drawing brushes.
 Large size paint brush.

JAPANESE SECTION-PALACE OF MANUFACTURES.

GROUP 29.

Cutlery.

(Palace of Manufactures.)

Sakai. I. Sakai Kanevoshi, Osaka-fu-Scissors.

Knives.

2. Schi Hamonosho Kumiai (Seki Cutlery Merchants' Union), Gifu-ken-

Daggers.

3. Senga Tetsukichi, Suyeyoshibashi-dori, Osaka-

Scissors.

Knives.

4. Wada Sohachi, Junkeimachi, Osaka-

Shears.

5. Yamanaka & Co., Kitahama, Osaka-Daggers.

GROUP 30.

Gold and Silversmiths' Work for Religious or Common Uses in Gold, Silver, Bronze or other Metals.

(Palace of Varied Industries.)

1. Aoki Yoshikiyo, Honmachidori. Kioto-

Table ornament.

2. Asaoka Iwataro, Aokicho, Yokohama-

Censers.

Flower vases.

3. Fujishima Suyekichi, Takeyamachi-dori, Kioto-Bird cage.

Insect cage.

Whisk broom. Soap boxes. Fruit basket.

Fujiwara Ihei, Hachimancho,

Mantel ornament.

5. Handa Chubei, Kawarayacho, Osaka—

Cake plates.

Bowls.

Pitchers.

6. Hasegawa Katsukiyo, Sototemachi, Honjoku, Tokio-

Mantel ornaments.

Flower vases.

Pitcher.

Dining utensils.

7. Hashimoto Tokusaburo, Otamachi, Yokohama-

Pin plates.

Ash receiver.

Card plates.

Pen trays.

Inkstands.

Toy tea service.

Tobacco utensils.

Satchels.

Incense boxes.

Match boxes.

Copy press.

Flower basins.

Candlesticks.

Dust pans.

Picture frames.

Stamp boxes.

Card boxes.

Censer.

Tobacco boxes.

Mantel ornaments.

Bell.

Match boxes

Paper knives. Spoons. Hat racks Copy press.

8. Hirata Shigemitsu, Suvehirocho, Kandaku, Tokio-

Sake bowl. Flower vases. Fruit dish. Flower plate. Coffee service. Ice shake vessels. Tobacco boxes.

Cake bowls. Tobacco cases.

Spoons.

9. Hori Yonekichi, Suyeyoshibashi-dori, Honjoku, Tokio-Cigar box.

10. Igarashi Katsujiro. Sotodemachi. Tokio-

Flower vases. Incense box.

Censer.

Mantel ornaments.

Cigar boxes.

Card trays.

11. Inouve Kashiro, Kayacho, Asakusaku, Tokio-Soap boxes.

12. Ito Sadabumi, Iriyacho, Shitayaku, Tokio-

Flower vases.

Censer.

Card plate.

13. Iwasaki Go. Okachimachi, Shitayaku, Tokio-

Candlesticks.

Flower vases.

Mantel ornaments. Ash receivers. Plates.

14. Jomi Yeisuke, Teramachidori. Kioto-

Flower vases.

Censers.

Tobacco-smoking utensils.

Lanterns.

Incense tray.

Cake bowl.

Mantel ornament.

Tobacco cases.

Coffee service.

Flower vase.

Card plates. Ash receivers.

Cabinet.

Colored metal samples.

Model of hammering process.

Model of engraving process and tools.

15. Kagawa Katsuhiro, Sakuragicho, Shitayaku, Tokio-Tobacco box.

16. Kanaya Gorosaburo, Tominokoji-dori, Kioto-Censers.

17. Kashima Yeijiro, Nichomachi, Shitayaku, Tokio-

Censers.

Ornamental jar.

Incense box.

18. Katsura Mitsuharu, Minamiayase, Tokio-

Flower vase.

19. Kawaguchi Yohei, Tachibanacho. Tokio-

Mantel ornament.

Tablet.

Censers. Flower vases.

Ornamental jars.

Shrine.

20. Kobayashi Kojiro, Sanjikkanbori, Kiobashiku, Tokio—

Flower vases.

Mantel ornament.

Flower plate.

21. Kobayashi Toru, Kawaracho, Asakusaku, Tokio—

Pen plates. Pen wiper. Stamp box. Letter holder. Paper knives. Plates. Inkstands. Candlesticks. Match boxes.

1 Tobacco-smoking vessels.

Ash receivers.
Dust pans.
Card plates.
Mantel ornaments.
Flower vases.
Incense boxes.
Plates.

Bells. Ring hooks.

Cigar boxes.
Cane heads.
Card trays.
Buttons.
Picture frames.

22. Kobayashi, Zembei, Shiwocho, Nihonbashiku, Tokio—

Plates.

Ash receivers. Card trays. Plates. Trays.
Pen trays.
Flower vases.
Tea jar.
Tea strainer.

Photograph frames.

Mirror.

Flower basin. Tobacco box.

Picture frames.

Watch chains. Thermometer. Paperweight.

Mantel ornaments.

Bowls.

Covered vessels.
Cake dishes.
Cake plates.
Sugar dish.
Candlesticks.
Bread plates.
Card receivers.

Spoons.
Salt spoons.
Cups.
Pin cushion.
Napkin rings.
Match boxes.
Toothpick boxes.
Face powder boxes.

Jewel caskets. Ring hooks. Brush case. Stamp boxes. Dust pan. Tea service. Candlesticks.

Tobacco-smoking utensils.

Tobacco boxes. Tobacco cases. Censers.

Bells.

Incense boxes.
Inkstands.
Ash receiver.
Letter holder.
Pepper box.
Salt cellar.
Knife handles.
Perfume bottles.

Perfume bottle Door pulls. Clasps.

Stretchers. Soap box. Cigar box. Wool box.

Dining utensils. Kettles

Kettles. Stick heads.

Sticks.

Button boxes.
Finger bowls.
Hat rack.

Utensil hooks. Shoe horns.

Shoe hooks. Glove hooks.

Paper knives.

Blotters.
Tooth brushes.

Alcohol lamp. Satchels.

Bowl boxes. Purses.

Plate. Censer. Sticks.

Compass.

Photograph frames

Die box. Charms. Medals.

Watch chains.

Neck ornaments. "Netsuke."

Rings.

Cuff buttons. Breast pins.

Pins.

Knives.
Bonnet pins.
Bracelets.
Buckles.

Lady's coat buttons. Tobacco boxes. Cigar boxes.

Match boxes. Spoons.

23. Komai Otojiro, Furumonzendori, Kioto-

Carved figure.
Cigarette case.
Watch box.
Umbrella handle.
Flower vase.
Bureau.
Small box.
Buckles.
Cuff buttons.

Cuff buttons.
Necktie pins.
Card case.
Mantel ornamen

Mantel ornament. Lady's card case.

24. Koyama Takejiro, Teramachidori, Kioto—

Flower vases. Cigar boxes. Cigar cases.

25. Kubota Gorobei, Itachibori-Minamidori, Osaka—

Buttons.

26. Kumagai Uhachi, Yagenboricho, Nihonbashi-ku, Tokio—

Chains.

Bag particles. "Netsuke."

27. Kurokawa Hidekatsu, Gokencho, Kanda-ku, Tokio-

Coffee services.

Tea services.

Kettle and alcohol lamp.

"Sake" bottles.

Dining utensils.

Pepper boxes.

Salt cellars.

Spoons.

Bowls.

Tea spoons.

Cake dishes.

Toilet articles.

Tobacco boxes.

Cigar cases.

Match boxes.

Ash receivers.

Glove clasps.

Umbrella handles.

Buckles.

Flower vases.

Censer.

28. Kusakari Toyotaro, Honkokucho, Nihonbash-ku, Tokio—

Mantel ornaments.

Flower vases.

Bells.

Candlesticks.

Censers.

Flower basins.

Tars.

Hat racks.

Inkstands.

Brush travs.

Paper weight.

Match boxes.

Tobacco boxes.

Ash receivers.

29. Mikawa Kozaburo, Hatagocho, Kanda-ku, Tokio—

Flower vases. Flower basins.

Candlesticks.

Mantel ornaments.

Paper weight.

Pen travs.

Incense boxes.

Ash receivers.

Match boxes.

Bells.

Bowls.

Satchel.

Nursing bottle.

Hat racks.

Censer.

"Sake" vessel.

Soap box.

Cigar cases.

Picture frames.

Hat pins.

Buttons.

Pins.

Card trays.

Napkin rings.

Spoons,

Salt cellars.

Pepper boxes.

Cane heads.

Stamp boxes.

Perfume bottles.

30. Miyabayashi Sozo, Kurumazaka-machi, Osaka—

Nickel plates.

Nickel soap boxes.

31. Miyabe Atsuyoshi, Takakuradori. Kioto-

Bureau.

Cake chest.

Flower vases. Incense boxes.

32. Miyamoto Katsu, Yazaemoncho, Kiobachi, Tokio-

Bowls.

Tea services.

Flower vases.

Incense boxes.

Face powder boxes.

Buckles.

Umbrella handles.

Cigar boxes.

33. Muramatsu Manzaburo. Odemmacho. Nihonbashiku. Tokio-

Watch chains.

Rings.

Pencils.

Rackets.

Buttons.

Pins.

Brooches.

Watch cases.

34. Murata Kimbei, Kawasekokucho, Nihonbashi-ku, Tokio-Flower vases.

Censers.

Card trav.

35. Namekawa Sadakatsu, Sendagi-cho, Hongo-ku, Tokio-Mantel ornament.

Card plate.

Flower vases.

36. Omachi Yeijiro. Ogibashicho, Fukagawa-ku, Tokio-Flower dish.

37. Ozeki Teijiro, Honcho, Yokohama—

Mantel ornament.

Tea service.

38. Saito Masakichi, Ginza, Kiobashi-ku, Tokio-

Censer.

Flower vase.

Mantel ornaments.

Sano Kashichi, Shinyemoncho, Nihonbashi-ku, Tokio-Flower vases.

40. Sasaki Minekichi, Okayamaken-

Card tray.

41. Shimoscki Kahei, Kaya-cho, Asakusa-ku, Tokio-

> Flower vases. Incense boxes.

Bowls.

Shinjo Inokichi, Shinzaimokucho, Nihonbashi-ku, Tokio-Cup.

Tobacco boxes. Flower vases.

43. Shinohara, Jushiro, Honshirokanecho, Nihonbashi-ku, Tokio---

Inkstands.

Paper weights.

Cake plates.

Smoking plates.

Plates.

Mantel ornaments.

Hat racks.

Compass.

Drawer pulls.

Bowls.

Tea spoons.

Tea services.

Tea jars.

44. Suzuki Chokichi, Akashi-cho, Kiobashi-ku, Tokio-

Mantel ornaments.

Flower vases.

45. Suzuki Kichigoro, Yokoyamacho, Nihonbashi-ku, Tokio-

Flower vases.

Censers.

Card plates.

Boxes.

Match boxes.

Paper weights.

Pen plates.

Dust pans.

Tajima Trading Co., Gifu-

ken-

Pin plates.

Pen travs.

Match boxes.

Travs.

Paper knives.

Dust pans.

Pitchers.

Takata Seijiro, Mukoyanagiwara, Asakusa-ku, Tokio-

Mantel ornaments.

Candlesticks.

Hat racks.

Inkstands.

Utensil in Buddhist worship.

Incense boxes.

Stamp boxes.

Paper weights.

Pen stands.

Pen wipers.

Ash receivers.

Plates.

Dust pans.

Spoons.

Match boxes.

Picture frame.

Tamahashi Nisuke, Niigata-48. ken_

Censer.

Pitcher.

Tamino Teruchika, Toyamaken-

Small box.

Taniguchi Terujiro, Ayanokojidori, Kioto-

Shrine.

Tewel casket.

Tobacco case.

Tsukata Shukio. Yushima-Tenjin-cho, Hongo-ku, Tokio-

Flower vases.

Uyeda Chobei, Fuya-cho, Kioto-

Flower vase.

Tobacco cases.

Tobacco boxes.

53. Watanabe Chozo, Aioi-cho. Yokohama—

Mantel ornament.

Yamaguchi Tankin Co., Hiranomachi, Osaka-

Plates.

Pitcher.

Flower vases.

Censer.

Incense box.

Photograph frame.

Yamanaka & Co., Kitahama, Osaka-

Censer.

Mantel ornaments.

Daggers.

Tewel stand.

Bowls.

Punch bowl.

57. Yamasaki Kamekichi, Bakurocho, Nihonbashi-ku, Tokio-

Watch chains.

Compass.

Spectacle frames.

Pencil sharpeners.

Buttons.

Incense box.

Censer.

Tobacco box.

Rackets.

Watch ornaments.

58. Yendo Tomojiro, Yokoyamacho, Nihonbashi-ku, Tokio-

Plates.

Bowls.

Card plates.

Ash receivers.

Plates.

Pen plates.

Coffee services.

Tobacco set.

Dust pans.

Face powder boxes.

Box.

Tobacco boxes.

Needle boxes.

Ring box.

Candlesticks.

Inkstands.

Mantel ornaments.

Paper weights.

Photograph frames.

Cake dish.

Hat rack.

Bell.

Match box.

Bowls.

Egg cup.

Censer.

Flower vases.

Lamp stand.

Clock stand.

Ornament plate.

Mantel ornaments. Picture frame.

59. YuasaToshichika. Kuzemura, Kioto-

Flower vases.

Censers.

Card tray.

Tobacco box.

Cloisonne Works.

Adachi Kinjiro, Nagoya—

Censer

Vases.

Lamp stands.

Cake dish.

Box.

Napkin ring.

Buckles.

2. Ando Jubei, Nagoya-

Screens.

Vases.

Boxes.

Tobacco boxes.

Ash receiver.

Censer.

Travs.

Tablets.

Flower pots.

Flower plates.

Flower basin.

Cake dish.

Mantel ornament.

Censer.

3. Gonta Hirosuke, Nagoya-

Flower vases.

Trav.

4. Goto Chivono, Uchida-cho, Yokohama-

Flower vases.

5. Goto Fusataro, Nagoya-Flower vases.

Censers.

Buckle and pot.

- 6. Goto Genjiro, Aichiken-Flower vases.
- 7. Hattori, Kichibei, Aichiken-Flower vases. Flower basin.
- 8. Hattori Kiosaburo, Aichiken-

Flower basin.

Chest.

. Hattori Tadasaburo, Nagova-

Chest.

Censers.

Card tray.

Incense box.

Lamp stand.

Buckle.

- 10. Hattori Umetaro, Nagoya-Flower vases.
- 11. Hayakawa Kamejiro, Na-

goya-Flower vases.

Tobacco boxes.

Ash receivers.

Match box.

12. Hayashi Hachizaemon, Nagova-

Flower vases.

Box.

Censers.

Bowl.

Hand box.

Cup.

Incense box.

Card plate.

13. Hayashi Aichi-Tazaemon, ken-

Flower vases.

Mantel ornament.

Aichi-14. Hayashi Yasujiro, ken-

Flower vases.

Plate.

15. Hayashi Chuzo (Representative of Hayashi Co.), Aichiken-

Flower vases.

16. Hayashi Daisaku (Representative of Tairin kwan kiomeikwai), Aichi-ken-

Flower vases.

Flower bowls.

Umbrella handles.

Card cases.

Buckles.

17. Hayashi Kodenji, Aichi-ken-Flower vases. Hand boxes.

18. Hayashi Kuwajiro, Aichiken-

Flower vases.

- 19. Hayashi Seigoro, Aichi-ken-Flower vases.
- Hirano Kichibei, Teramachi-20. dori, Kioto-Flower vases.
- 21. Honda Yosaburo, Nagoya-Flower vases.

Censers.

Pot.

Covered vessels.

Boxes.

Tray.

Mantel ornaments

Plate.

22. Ichiban Company, Nagoya-

Flower vases.

Censers.

Cake vessel.

Hand box.

Pot.

Tray.

Ash receiver.

Coffee service.

23. Ichikawa Tsunezo, Nagoya-Flower vases.

Censers.

24. Ikai Sanjiro, Nagoya-Flower vases.

25. Ikeo Kimbei, Aichi-ken-Flower vases.

Cake plate.

26. Inaba Nanaho, Imakojimachi, Kioto-

Plates.

Flower vases.

Flower pots.

Tobacco box.

Tea service.

Kettles.

"Sake" pots.

27. Isshiki Shuriki, Nagoya-

Flower vases.

Censers.

Pen stand.

Tea service.

28. Kawade Shibataro, Nagoya-

Flower vases.

Flower plates.

Tablets for ornament.

29. Kawaguchi Bunsemon, Nagova-

Flower vases.

Covered vessel.

Pot.

Bowl.

Tray.

Censers.

Buttons.

. Incense box.

Card tray.

30. Kawano Yoshitaro, Honcho, Yokohama—

Flower vases.

Bowl.

Pot

Coffee service.

Cake vessel.

Toilet set.

31. Kodama Seisaburo, Nagoya-

Flower vases.

Censers.

Incense box.

Card trav.

Ash receiver.

Fire box.

32. Komabayashi Suekichi, Na-

goya-

Flower vases.

Incense box.

Censers.

33. Kumeno Teitaro, Nagoya-

Flower vases.

Pot.

Censers.

Bowls.

Coffee service.

Card plate.

Salt cellars, with spoons.

Pepper boxes.

Match boxes.

Hand boxes.

Buckles.

34. Kuno Heisuke, Aichi-ken-Flower vases.

Incense box.

35. Kyoshinsha, Furukawamachi, Kioto—

Tea service.

Censers.

Flower vases.

Tea pots. Card plates.

Ash receivers.

Napkin rings.

Flower pots.

Rowls.

Coffee service.

Buckles.

Tobacco sets.

Inkstands.

Covered vessels.

Chocolate service.

Box.

36. Mizoguchi Teip, Aichi-ken-

Flower vases. Bowl.

Bowl.

Mizuno Ihei, Nagoya—

Censers.

Flower vases.

38. Mizutani Tetsuzo, Nagoya-

Flower vases.

Mantel ornament.

39. Momoi Tatsuo, Motohamacho, Yokohama-

Flower vase.

40. Mori Tatsujiro, Nagoya-

Flower vase.

Incense box.

Cup.

41. Murase Jinsaburo. Aichiken-

Flower vases.

Censers. Plate.

Bowl.

42. Nagata Sojiuro, Nagoya-Flower vases.

Censers.

43. Nakamura Tsurukichi, Naσονα-

Flower vases.

Incense box.

Censer.

44. Namikoshi Kyomei, Shippokwai, Nagoya-

Flower vases.

Fire boxes.

Censer.

Plate. Bowl.

45. Namikawa Sosuke, Shinyemon-cho, Nihonbashi-ku, To-

kio-

Tablets.

Flower vases.

Flower bowl.

Censer.

Travs.

Card trays.

Boxes.

Incense boxes.

46. Noma Kitaji, Kume Nobutsuna, Flower vases.

Buckle.

Incense box.

Bowls.

Censer.

Cuff buttons.

Card plate. Cake vessels. Flower vases.

47. Nonogaki Naojiro, Nagova-Flower vases. Flower pots.

Bowls.

Vases.

49. Ohashi Tsunesaburo. Nagoya-

Flower vases.

Bowl.

50. Okamoto Shosaburo, Aichiken-

Flower vases

Buckles.

Cuff buttons.

Studs.

Incense boxes.

Censer.

51. Ota, Jiunai, Nagoya-

Flower vases.

Mantel ornaments.

Censers.

Hand box.

Tobacco box

Tooth brush holder.

Buckles

52. Ota Katsusaburo (representative of Honyeisha), Aichi-

ken-

Flower vases.

Censers.

Plates.

53. Ota Harujiro, Aichi-ken-

Flower vases.

Canes.

Card plate.

Pots.

Censer.

Bowl.

54. Ota Hyozo, Aichi-ken-Flower vases.

55. Ota Tamejiro, Aichi-ken-Flower vases. Censer.

56. Ota Tomoemon, Nagova-

Flower vases.

Censer.

Cake vessel.

"Sake" pot.

Hand box.

Specimens.

Buckles.

Tea jar.

Toilet set.

57. Ota Toshiro, Aichiken-

Flower vases.

Plates.

Incense box

Card plates.

Umbrella handles.

Censers.

58. Sano Bunjiro, Nagoya-

Flower vases.

Incense box.

Covered vessels.

59. Sano. Toyosaburo, Sanjo. Kioto-

Flower vases.

Buckles.

60. Sato, Nasuyemon, Nishi-Tobecho, Yokohama-

Censers.

Flower vases.

Round trays.

Square trav.

Box.

Bowls.

61. Sato, Sentaro, Saki-cho, Yokohama-

Flower vases.

Censers.

Incense boxes.

Tray.

62. Shibayama, Ichisaburo, goya-

Flower vases.

Incense boxes.

63. Shimamura, Tera-Shingo, machi-dori, Kioto-

Biscuit box.

Smoking sets.

Photograph frames.

Flower pots. .

Pitchers.

Sake pot.

Flower vases.

Censers.

64. Shimizu, Shige, Nagoya-Flower vases.

Cake vessels.

65. Shippokwan Kwaisha, Aichi-

ken-

Flower vases.

66. Suzuki, Yaroku, Nagoya--Flower vases.

Boxes.

Censers.

Bowl.

Napkin ring.

Buckles.

Bowls.

Stamp boxes.

Incense boxes.

Plates.

67. Suzuki, Toramatsu, Nagoya-

Flower plates.

67. Suzuki, Kichigoro, Yokoyamacho, Nihonbashi-ku, Tokio-

Flower vases.

Card plates.

Censers.

Tablets.

63. Takahara, Komajiro, Sanjobashihigashi, Kioto-

Flower vases.

lars.

Sake pot.

Buckles.

Takasaki, Takaichiro, Ishiharamachi, Honjo-ku, Tokio-Censer.

Flower vases and mantel ornament.

70. Takaya Bros. Co., Sanjo-dori, Kioto —

Flower vases.

Jewel casket.

Nursing vessels.

Censers.

Pitchers.

Box.

Tea pot.

71. Takeda, Chinemon, Nagoya-Flower vases.

Takeda, Genjiro, Aichiken-Flower vases.

73. Takeda, Saijiro, representative of Hosansha, Aichiken-

Flower vases. Cake dishes.

Balls.

Bottle.

Plate.

Incense box.

- 74. Takeda, Saijiro, Aichiken— Flower vases.
- Takeda, Seikuro, Aichiken— Flower vases.
 Ash receiver.
- 76. Takeda, Tsunesuke, Aichiken— Flower vases
- 77. Takito Company, Nagoya— Flower vases.
- 78. Taniguchi, Tokujiro, Mushauokoji, Kioto—

Flower vases.

Covered vessels.

Tobacco box.

Hand box.

Incense box.

Jewel chests.

Swords.

- Terazawa, Yeijiro, Nagoya— Flower vases.
- 80. Tomiki, Shobei, Nagoya-

Flower vases.

Cigar box.

Book shelf.

Flower plate.

Pot.

Hand box.

Censers.

81. Tsukamoto, Jimbei, Nagoya—Censers.

Flower vases.

Bowl.

82. Tsukamoto, Hikokichi, Aichiken—

Flower vases.

Incense box.

83. Tsukamoto, Tojiro, Aichi-

Flower vases. Incense box.

84. Tsukamoto, Takisaburo, Nagoya—

Flower vases.

85. Yamada, Kanjiro, Aichiken—Flower vases.

Censer.

Bowl.

86. Yamamoto, Yuzan, Saujo-Minami-ura, Kioto—

Chest.

Flower vases.

Buckles.

87. Yasukawa, Hyoji, Shimizucho, Yokohama—

Flower vases.

Flower plates.

89. Yoshida, Shaki, Aichiken— Flower vases.

GROUP 31.

Jewelry.

(Palace of Varied Industries.)

 Ishihara, Sohei, Kofu— Mantel ornaments.

Flower Vases.

 Kawashima, Katsuzo; Koma Isaburo; Nagaoka, Moichiro, Shimane-ken—

Censers.

Desk ornaments.

Amethyst.

Mantel ornaments.

Agate beads.

Flower vase.

Kobayashi, Sakuzaemon, Representative of Jitsugio Dantai, Fukui-ken—

Colored agate balls. Mantel ornaments.

Agate balls.

Paper weights.

Basin ornaments.

 Kurokane, Denshichi, Ibarakiken—

Pins.

Pin ornaments.

5. Mikimoto, Kokichi, Miye-

Pearls (cultured).

Samples of pearls.

Photographs.

Glass beads.

Pearl rings.

Pearl pins.

Pearl studs.

Pearl cuff buttons.

Ear-rings.

Brooches.

Bracelets.

Necklaces.

6. Numata, Sangoro, Miyeken— Pins.

Rings.

 Oishi, Kaoru, Yamanashiken—

Mantel ornaments.

Quartz.

8. Tanaka, Akihiro, Yamanashiken—

Mantel ornaments.

 Tanaka, Scijiro, Yamanashiken—

Mantel ornaments.

10. Tanzawa, Kihachiro, Yamanashiken—

Mantel ornaments.

11. Tsuchiya, Aizo, Yamanashiken—

Mantel ornaments.

12. Tsuchiya, Muneyuki, Yamanashi-ken—

Mantel ornaments.

Mantel ornament stands.

13. Yamanaka & Co., Osaka-

Agate flower vase.

Agate wine cups and mantel ornaments.

14. Yoda, Kesazo, Kamiyoshicho, Asakusa-ku, Tokio—

Amethyst.

Opal balls.

GROUP 32.

Clock and Watch Making.

 Takada, Saijiro, Mukoyanagiwaramachi, Asakusa-ku, Tokio-

Clock cases.

Clock.

Clock case ornaments.

Ornamental hinges.

GROUP 33.

Productions in Marble, Bronze, Cast Iron and Wrought Iron.

(Palace of Varied Industries.)

 Abe, Insai, Hanazonocho, Shitayaku, Tokio—

Mantel ornaments.

 Arai, Yasujiro, Kasaya-machi, Osaka—

Mantel ornaments.

Bowls.

Flower vases.

Lanterns.

3. Fujiwara, Ihei, Yawata-machi, Osaka—

Lanterns.

Mantel ornaments.

4. Fujikawa, Teishi, Niigatakeu—

Card trays.

 Fukuda Bros., Kita-Kintaromachi, Osaka—

Mantel ornaments.

Lanterns.

Flower pots.

Flower vases.

Fountain.

- 6. Fukuda, Kojiro, Shigakeu— Flower vase.
- Hasegawa, Kameyemon, Wakamiya-dori, Kioto—
 Flower vase, Candlesticks.

Candiesticks.

Bread vessels.

8. Hasegawa, Kojiro, Uye-Honmachi, Osaka—

Mantel ornaments.

9. Hayashi, Shinsuke, Furumonzen, Kioto—

Mantel ornaments.

Censer.

Lanterns.

10. Hirano Kichibei, Teramechidori, Kioto—

Flower vases.

Lanterns.

 Hodota, Takichi, Sakaicho, Yokohama—

Flower vases.

Censers.

- Hori, Sangoro, Niigatakeu— Mantel ornaments.
 Flower vases.
- Ichihashi, Torakichi, Higashi-Hirano-machi, Osaka—
 Electric lamp stand.

Flower vases.

14. Idzumi, Seijo, Yamamoto-cho, Kauda-ku, Tokio— Censer.

Flower vases.

- Ikeda, Seisnke, Kioto— Mantel ornament.
 Flower vases.
 Censer.
- Imai, Wasaburo, Kioto— Flower vases.
- 17. Inui, Teisaburo, Shinmouzen, Kioto—

Tablet.

Censers.

Flower vases.

Bowls.

18. Ishii, Kihci, Sukiya-cho, Nihonbashi-ku, Tokio—

Mantel ornaments.

 Kadoha, Kanzayemon, Bentendori, Yokohama—

Mantel ornaments.

Flower vase.

 Kamiya, Teijiro, Ibarakiken— Flower vases. 21. Kanaya, Gorosaburo, Tominokoji, Kioto—

Ornamental jar.

Flower vases.

Tray.

Box.

Tablet.

22. Kanazawa, Gensuke, Ibarakiken-

Flower vases.

23. Kaneda, Kanejiro, Oga-cho, Kyobashi-ku, Tokio—

Mantel ornaments.

24. Kano, Seinu, Mukojima Ukeji-cho, Honjo-ku, Tokio—

Flower vases.

Mantel ornament.

 Katori, Hidemasa, Nippori, Tokio—

Fountain.

 Kawakami, Katsutoshi, Scudagi-cho, Hongo-ku, Tokio— Censer.
 Mantel ornament.

27. Kihara, Hoshu, Tokio— Flower vases. Mantel ornaments. Candlesticks.

28. Kitamura, Kihei, Tamayamachi, Osaka—

Flower vases.

Fire boxes.

 Kobayashi, Kojiro, Sanjikkenbori, Kyobashi-ku, Tokio— Flower vases.

Mantel ornament.

30. Koidzumi, Gensaburo, Ibaraki-ken—

Tron kettle.

Iron kettle.

Bell.

31. Kumekawa, Yeikichi Sannomiya, Kobe—

Flower vase.

Mantel ornaments.

32. Kuritani, Genroku, Tori-Abura-cho, Nihonbashi-ku, Tokio-

Flower vases.

33. Kuroda, Kiichi, Teramachi, Kioto—

Smoking set.

Flower vases.

Plate.

Tobacco box.

34. Kuroha, Gembei, Ibarakikeu—

Tablet.

Flower vases.

Incense box.

35. Kurokawa, Hidekatsu, Gokencho, Kanda-ku, Tokio-

Flower vases.

Cake bowl.

Match boxes.

Cigarette boxes.

36. Maki Mitsuhiro, Kojima-cho, Asakusa-ku, Tokio—

Mantel ornaments.

Censers.

Flower vases.

 Makino, Sotojiro, Nezu-Miyanaga-cho, Hongo-ku, Tokio--

Mantel ornaments.

38. Metal Work Association for St. Louis Exposition-Flower vases. Mantel ornaments, Plates. Censers. Tablet. Card plates. Cigarette boxes. Flower pot. Candlesticks.

Beer cups. Paper weights.

Ornamental plate.

Match boxes. Cigar holders.

Tea service.

39. Mimino, Kashichi. Yazvatasuji, Osaka-Flower vases.

Mantel ornaments. Censer.

- 40. Miyamoto, Yunan, Nagoya-Flower vases. Mantel ornaments.
- 41. Mizoguchi, Yasunosuke, Tominokoji, Kioto-Bread plate. Flower vases.
- 42. Mizutani, Tatsuzo, Motohamacho, Nagova-Flower basins. Censer.

Bowls.

Lanterns.

Mantel ornaments.

Censer.

43. Morita, Soju, Ibarakiken-Mantel ornament.

Murakami, Hikoshiro, Omiya-44. dori, Kioto-

Lamp stands. Flower basins.

Mantel ornament.

Lamp shades.

Lanterns.

Murakami, Chubei, Kuromondori, Kioto-

Lamp stand and flower vases. Mantel ornament.

46. Murakami, Takejiro, Sanjodori, Kioto-

Ash receivers.

Trays.

Pitchers.

Hanging flower vase.

Chandeliers.

Bowls.

Gongs.

Lanterns.

Umbrella stands.

Flower vases.

Lamp shades.

Electric lamp stands.

Flower pots.

Smoking sets.

47. Nagamatsu, Sajiro, Teramachi-dori, Kioto-Bells.

Lanterns.

Flower vases

Card plates.

Nagasaka, Tasaburo, Manjujidori, Kioto-

Flower vases.

Lanterns.

Mantel ornament.

49. Nakamura, Hambei, Minami-Kinhoji-machi, Osaka-

Flower vases.

Coffee service.

Coffee cups.

Covered vessel.

Cake vessels.

Cigar boxes.

Bowl.

- 50. Nakamura, Sakujiro, Izumicho, Kyobashi-ku, Tokio-Mantel ornament.
- 51. Nakamura, Kinosuke, Owaricho, Kyobashi-ku, Tokio-Mantel ornament.

Flower vases.

Basin.

- 52. Nakano, Sakujiro, Higashi-Hiranomachi, Osaka-Flower vases.
 - Electric lamp stands.
- 53. Nishii, Yohei, Kuromonzen, Kioto-

Gas lamp.

Flower vases.

Censers.

Flower pots.

Ginzo, Honcho, Nishikawa. 54. Yokohama-

Flower basins.

Mantel ornaments.

Candlesticks.

Censer.

55. Nishimura, Yasubei, Honmachi. Kioto-

Flower vases.

Censer.

Cake vessel.

Lunch set.

Coffee sets.

Silver pot.

Smoking set.

56. Noboriyama, Kinzo, Masagocho, Yokohama-

Flower vases.

57. Nogami, Ryoki, Hanazonocho, Shitaya-ku, Tokio-

Mantel ornaments.

Censers.

Flower vases.

58. Nokawa, Noboru, Shijo-dori, Kioto-

Plates.

Flower vases.

Kettle.

Tobacco box.

Box.

Censers.

59. Nomura, Yozo, Honcho, Yokohama---

Flower basin.

60. Oka, Iheye, Tamaya-machi, Osaka-

Flower basin.

Smoking set.

Flower pot boxes.

61. Okatani, Sosuke, Nagoya-Flower vases.

Basin.

Fire boxes.

62. Okazaki, Sessei, Yanaka-Hatsune-cho. Shitaya-ku, Tokio-

Flower vases.

Mantel ornament.

63. Omori, Katsuhide, Ibarakiken-

Mantel ornament.

64. Osaka Bronze Co., Kita-Kinhoji-machi, Osaka— Lanterns. Umbrella stands. Flower vases.

Mantel ornaments. Flower pots.

Tablet.

65. Otsuka, Masuzo, Tcramachidori, Kioto—

Flower basins. Lamp stands.

Bowls. Basin.

Censer. Gas lamp stand.

Flower pots.

66. Sekiguchi, Torakichi, Niigata—

Cake vessels. Flower vases. Pipe holder.

67. Shibata, Matakichi, Hinodecho, Yokohama—

Cake bowls.

Card case.

Flower vases.

Mantel ornament.

68. Shimamura, Shingo, Teramachi-dori, Kioto—

Flower basins.

Censers.

Flower pots.

Pitcher.

Lantern.

69. Shima, Sahei, Awaza-Shimodori, Osaka—

Flower vases.

Censers.

Gas lamp stands.

Flower pot stands.

Flower pots.

Tablet.

Lanterns.

Basins.

Mantel ornaments.

Fountain.

Lamp stands.

Electric lamp stands.

Umbrelia stands.

70. Shimoseki, Kahei, Kaya-cho, Asakusa-ku, Tokio—

Flower vases.

Mantel ornaments.

Flower pots. Plates.

Censers.

71. Shiwozaki, Rihci (Representative of Takaoka Bronze Merchants' Association).

Toyamaken-

Flower vases.

Flower pots.

Lamp stands.

Basins.

Flower plates.

Mantel ornaments.

Censers.

Lanterns.

Ash receivers.

Cigarette box.

Card tray.

Pitcher.

Flower basin.

Fire boxes.

72. Suzuki, Chokichi, Akashi-cho. Kyobashi-ku, Tokio—

Flower vases.

Mantel ornaments.

73. Suzuki, Kichigoro, Yokoyama-cho, Nihonbashi-ku, Tokio-

Basins.

Mantel ornaments.

Censers.

Flower pots.

74. Tachibana, Zentaro, Osaka-

Flower vases.

Censer.

Flower pots.

Umbrella stands.

75. Takahashi, Saijiro, Teramachi-dori, Kioto—

Lanterns.

Bell with stand.

76. Takao, Sadashichi, Kawaramachi, Osaka—

Flower basins.

Lamp stands.

Flower pots.

Basins.

Flower pot stands.

Mantel ornaments.

Fire boxes.

Lanterns.

Censers.

Electric lanterns.

Flower basins with electric lamps.

Umbrella stands.

Electric lamp stands.

Lamp shades.

77. Takemoto, Kinzayemon, Azuchi-machi, Osaka—

Flower vases.

Fruit plate.

Flower basket.

Cake dish.

Tobacco boxes.

Ash receiver.

Censer.

Vase doily.

78. Tamahashi, Nisuke, Niigata-

Flower vases.

Cake vessels.

Cake plates.

Pitchers.

Card trays.

aid days

Censer.

79. Tamakawa, Kakuhei, Niigata-

Flower vases.

Lamp stand.

Card tray.

80. Tateno, Nisakichi, Ishikawa-

Mantel ornament.

81. Tsutsumi, Yosojiro, Teramachi-dori, Kioto.

Flower vases.

Iron kettles.

82. Watanabe, Chozo, Aioi-cho, Vokohawa—

Mantel ornaments.

Flower vases.

83. Yamada, Shinsuke, Mitoshirocho, Kanda-ku, Tokio—

Flower vases.

84. Yamawoto, Meijiro, Takchaya-cho, Koishikawa-ku, Tokio—

Mantel ornaments.

Flower vases.

85. Yamamoto, Naojiro, Takatsuji-dori, Kioto—

Flower vases.

Mantel ornaments.

Cigar boxes.

Card plates. Alcohol stove. Coffee set. Smoking set. Ash receivers. Tobacco cases. Lantern.

86. Yamamoto, Yaheiji, Niigata---

Flower vases. Kettle with alcohol stove.

87. Yamamoto, Yonezo, Tatamiya-machi, Osaka— Mantel ornaments.

Flower basins.

88. Vamanaka, Genbei, Teramachi-dori, Kioto— Flower vases. Cake dishes.

89. Yamanaka Co., Kitahama, Osaka—

Mantel ornaments.

Mantel ornaments.

Basins.

Flower basins.

Lanterns.

90. Yoshida, Teizo, Kita-Kinojimachi, Osaka—

Flower vases. Censer.

Mantel ornaments.

Electric ornaments.

Flower pots. Lamp stands.

91. Yoshida, Yasubei, Tominokoji, Kioto—

Flower pots.

Gas lamp stands.

Flower basins.

Censers.

Flower vase stands.

Lantern.

92. Yoshikawa, Magoshiro, Karasumaru-dori, Kioto-

Flower vases.

Lamp stands.

Flower pots.

Censer.

GROUP 34.

Brushes of Vorious Kinds. (Palace of Manufactures.)

 Hachimura Brush Factory, Osaka—

Tooth brushes.

Nail brushes.

Hair brushes.

 Izawa, Riichiro, Nishinotoindori, Kioto—

Brushes.

 Mayekawa, Yohei, Teramachidori, Kioto—
 Samples of brushes.

Fine Leather Goods. (Palace of Manufactures.)

 Fukui, Genjiro, Kitanakadori, Yokohama—

Card cases.

Purses.

2. Hashimoto, Tokusaburo, Otamachi, Yokohama—

Card cases.

Pocketbooks.

Purses.

 Hodota, Tokichi, Sakai-machi, Yokohama—

Purses.

4. Ichikawa, Tarokichi, Kawaramachi, Asakusa-ku, Tokio-

Purses.

Pocketbooks.

Card cases.

Cigar cases.

 Ishida, Kamckichi, Junkeimachi, Osaka—

Boxes.

Picture frames.

Bags.

6. Izvata, Toyo, Yamashita-cho, Yokohama—

Card cases.

Purses.

7. Kataki, Tokumatsu, Hyogoken-

Leather boxes.

Cigar boxes.

Boxes.

8. Kawase, Masashichi, Tomotsu-cho, Osaka—

Cigarette cases.

Ladies' purses.

Pocketbooks.

Card cases.

Purses.

Pencil holder.

 Kobayashi, Ryonosuke, Tori-Abura-cho, Nihonbashi-ku, Tokio—

Purses.

 Kobayashi, Tobei, Tori-Abura-cho, Nihonbashi-ku, Tokio—

Purses.

11. Koyama, Takejiro, Teramachi-dori, Kioto—

Bags.
Pocketbooks

Purses.

 Kumagac, Daijiro, Wakamatsu-cho, Nihonbashi-ku, Tokio—

Purses.

Bags.

Belts.

Card case's.

13. Knmagae, Uhachi, Yagenboricho, Nihonbashi-ku, Tokio—

Purses.

Pocketbooks.

Card cases.

Valise.

Collar box.

Cuff box.

Handkerchief box.

14. Kntsntani, Takijiro, Ikenohata, Naka-cho, Shitaya-ku, Tokio-

Purses.

Bags.

 Miye-ken Paper Tobacco-Ponch Merchants' Association, Miye-ken—

Bags.

Purses.

Cigar cases.

Ladies' pocketbooks.

Card case.

 Nakata, Yonematsu, Nakanocho, Akasaka-ku, Tokio— Bracelets with watches.

 Ohno, Yasuji, Hyogo-ken— Boxes.

Cigar boxes.

18. Shibata, Natakichi, Hinodecho. Yokohama-

Card case.

Pocket book.

Bag.

Purses.

19. Sugiye, Shimbei, Minami-Kinhoji-machi, Osaka-

Lady's bag.

Cigarette case.

Pocket books.

- 20. Suzuki, Kichigoro, Yokoyamacho, Nihonbashi-ku, Tokio-Ladies' bags.
- 21. Takahashi, Shikanosuke, Tera-machi-dori, Kioto-

Bags.

Pocket book.

Traveling bag.

Purses.

Pocket books.

Perfume bags.

Picture frames.

Takemura, Ito, Honcho, Yokol:ama-

Purses.

23. Uraku, Ushishichiro, Hyogokcu--

Leather boxes.

Cigar boxes.

Boxes.

24. Yamamoto, Naojiro, Bentendori, Yokohama-

Purses.

Pocket book.

Yamanaka Co., Kitahama, Osaka--

Bags.

Lacquer Works.

(Palace of Varied Industries.)

1. Akatsuka, Jitoku, Hamamatsu-cho, Shiba-ku, Tokio--Box.

Cigarette boxes.

- 2. Ariiso, Shutaro, Niigatakeu-Boxes. Card travs.
- 3. Chiba, Tokuhci, Toyamaken-Cigarette case. Handkerchief box
- 4. Fnjikawa, Meizo, Kagawaken-Ink stone box. Coffee service tray. Cigarette holder. Boxes.
- 5. Fujikawa, Kinzo, Kagawaken-Cigarette cases. Cake bowl. Ink stone box.
- 6. Fujiwara, Ihei, Yawata-machi. Osaka-Tray. Incense box. Incense boxes. Cahinet Ink stone and stand. Tablets. Ornamental dish.

Flower vases.

Handkerchief boxes. Small cabinet.

Fire box.

Incense box with travs.

7. Fukuda, Kichirobei, Gifu-Carvings.

Photograph holders.

Cabinet.

Bookcase.

Trays.

Boxes.

Handkerchief boxes.

8. Fukuda, Jusuke, Matsuzcaradori. Kioto-

Screen.

9. Fukui, Genjiro, Kita-Nakadori, Yokohama-

Cigarette cases.

10. Fukuju, Takizo, Gifuken --Cabinets.

Desk travs.

Tablets and cake boxes.

11. Fukuju, Yahei, Gifuken-Ink stone box.

Tablets.

Boxes.

Incense boxes.

Cabinet.

12. Fukunaga, Sennosuke, Sukiya-cho, Nihonbashi-ku, Tokio-

Cake plate. Incense box.

Incense box and tray.

Box.

Tablets.

Cigarette box.

Flower basin.

Travs.

- 14. Hakone Bussan Goshi Kaisha, Kanagawa-keu-

Small screens.

Toilet powder boxes.

Thread box.

Towel hangers.

Wooden plate.

Collar boxes.

Cuff boxes.

Bread tray.

15. Harni, Scisaburo, Sanjo-dori, Kyoto-

Box and ink stone box.

Cigarette boxes.

16. Hayashi, Kuhei, Muro-machi, Nihonbashi-ku, Tokio---

Ash receivers.

Finger bowls.

Clothes rack.

Screen and folding screen.

17. Hayashi, Shinsuke, Furumonzen, Kioto-

Mantel ornaments.

Incense box.

Tray.

18. Hodota, Takichi, Sakai-cho, Vokohama---

Folding screen.

Bookcases.

Tablets.

Chests.

19. Ichishima, Asajiro, Konyacho, Kanda-ku, Tokio-

Hand boxes.

Box and ink stone.

Travs.

20. Idumi, Suychiro, Niigata-Table.

Handkerchief box

Card trav.

21. Ikeda, Matsunosuke, Yagenbori-cho, Nihonbashi-ku. Tokio-

Cake vessels.

22. Ikeda, Seisuke, Shimmonzen, Kioto-

Bureau.

Cabinet.

Ink stone box.

Incense box.

Cake vessel.

Incense tray.

23. Imadachi-gun LacqueredWare Merchants' Association, Fukui-ken—

Trays.

Plates.

Bread plates.

Handkerchief boxes.

Lunch travs.

Cake vessels.

Cigarette boxes.

Bowls.

24. Imamura, Nanosuke, Honcho, Yokohama—

Trays.

Plates.

Dust pans.

 Ishiseki, Sauctaro, Minamidenma-cho, Kyobashi-ku, Tokio—

Flower vases.

26. Kekeno, Ukichi, Takatsujidori, Kioto—

Desk.

Lunch boxes.

Tray.

Flower vase stand.

Cake dish.

Tables.

27. Kanazawa Lacquer Ware Exhibitors' Association, Ishikawa-ken—

Tablets.

Ink stone boxes.

Bookcase.

Boxes.

Card trays.

Cigarette boxes.

Trays.

Incense boxes.

Tables.

Meat plate.

Flower vase stands.

Dish.

Cake vessels.

Glove boxes.

Porch shades.

Paper boxes.

Card box.

Ornamental hanging board.

Cabinet.

Trav.

Ring cases.

Photograph frames.

Flower vase.

Stamp pad box.

Writing brushes.

Picture frames.

Medicine chest.

 Kashiwabara, Magozacmon, Tori-cho, Nihonbashi, Tokio—

Glove boxes.

Cigar cases.

Finger bowls.

Ring case.

Trav.

Bureau.

Boxes.

Ink stone boxes.

29. Kato, Uhci, Motoyanagi-cho, Kanda-ku, Tokio-

Trays and incense boxes.

30. Kawabata. Sashichi. Imabashi, Osaka-

Hand box.

Incense box.

Trav.

31. Kawasaki, Minejiro, Fukuokaken-

Trays.

Cigarette trays.

Cigar cases.

Picture frames.

Bowl.

Table.

Sticks.

32. Kawashima, Genjiro, Niigata-

Tablets.

Cigarette boxes.

Boxes.

33. Kawashima. Yoshinosuke, Ryogaye-machi, Kioto-

Boxes.

Cabinet.

Censer.

Inkstone box.

Cigarette box.

Cake vessels.

Incense box.

Tea caddy.

34. Fukushima-ken Lacquer Ware Merchants' Association, Fukushima-ken-

Clothes travs.

Cigarette boxes.

Brush travs.

Card trays.

Glove box.

Tray.

Handkerchief box.

Tablet.

Bowl.

Plate. .

Cups.

Trays.

Cake tray.

35. Kobayashi, Rionosuke, Tori-Abura-cho. Nihonbash-ku, Tokio-

Cuff and collar case and belt.

36. Kobayashi, Tomitaro, Benten-

dori, Yokohama-

Book case.

Folding screens.

Tablets.

37. Kobayashi, Toyemon, Toricho, Nihonbash-ku, Tokio-

Finger bowls.

Box.

Umbrella box.

Trays.

Tablet.

Cigarette box.

Cigarette tray.

Collar box.

Napkin rings.

38. Komayei, Zensuke (Representative of Takaoka Lacquer Ware Merchants' Association), Toyama-ken-

Boxes.

Trays.

Cigarette cases.

Stationery articles.

Folding screen.

Basin.

Handkerchief boxes

Book cases.

Tables.

Toy box.

Cupboard.

Glove box. Cake vessel. Tablets. Bureau. Photograph box.

Tobacco box.

39. Komaki, Bunjiro, Chojamachi, Yokohama-

Card tray.

40. Koyama, Kimpci, Niigata-

Stand and inkstone box. Ornament stand

Tray.

Sample board.

Koyama, Tsunejiro, Awajicho, Kanda-ku, Tokio-

Chests

Box.

42. Kuroda, Mosuke, Nagoya-

Boxes.

Travs.

Thread boxes.

Postal card boxes.

Cigarette boxes.

Cake chests.

Pocket cups. Finger bowls.

Smoking sets.

Tooth brush boxes.

Glove boxes

Handkerchief boxes.

Paint boxes.

"Kvokuroku" arm rests.

Card boxes.

Ring casket.

43. Machida, Chonosuke, Gifu-

Travs.

Cake vessels.

AA. Maki. Kinhei, Hongo, Chome, Tokio-

Trav.

Tea trays.

Cake travs.

Card trays.

Tobacco cases.

Tobacco boxes.

Postal card boxes.

Stamp boxes.

Cup.

45. Maruichi Upholstery Co., Nagasaki-

Napkin rings.

Finger bowls.

Collar box.

Cuff box.

Small boxes.

Tables.

Cabinet. Picture frames.

Umbrella stands.

Flower vases.

Bureaus.

Wooden plates.

Face powder vessels.

Pin boxes:

Glove box.

Sadashichi, 46. Matsubayashi, Kintaro-machi, Osaka-

Tea service.

Travs.

Gymnastic apparatus.

Clothes racks.

Boxes.

Cake dishes.

Incense box.

Flower vases.

Beer boxes.

Handkerchief box.

Glove box.

Folding screen.

Flower basket.

47. Midzutani. Tetsuzo. Nagoya-

Book cases.

Box.

Tablets.

Screens.

Folding screens.

48. Mikami Heijiro. Aomariken-

Document box.

Perfumery chest.

Book case.

Cigarette case with tray.

Trav.

49. Mikami, Jisaburo, Takatsuji, Yanagino-Bamba, Kioto-

Flower vases.

Cigarette box.

Jewel casket.

Cake vessel.

Cigarette case.

Handkerchief box.

Card trav.

Tablet.

Panel board.

Folding screens.

Cabinet.

50. Munemura, Keikichi. Nii-

Travs.

Tablets.

51. Murata, Kimbei, Kawase-Koku-cho, Nihonbashi-ku, Tokio-

Boxes.

Incense boxes.

Incense chests.

52. Nakamura, Zenkichi, Aomoriken-

Cigarette box.

Perfumery chest.

Cake box.

Trav.

Cabinet.

53. Nara Lacquered Ware Merchants' Association, Nara-Lacquered wares.

54. Nishimura, Hikobei, machi, Ayanokoji, Kioto-Photograph racks.

Cabinet.

Cigarette boxes.

Travs. lewel casket.

55. Nisshin Lacquered Ware Factorv. Naka-cho. Koishikawa-ku, Tokio-

Boxes.

Glove box.

Cigarette boxes.

56. Nomura Yozo, Hon-cho, Yokohama-

Book case.

Folding screens.

57. Obara, Jingoyemon, Toyama-ken-

Cigar box and screens.

58. Oi, Inomatsu, Niigata-Trav.

Pitcher with tray.

Tablet.

Cake vessel

Handkerchief box.

Travs.

Box and card tray.

Tea service in basket.

Boxes.

59. Ono, Yukichi, Gorobei-cho, Kvobashi-ku, Tokio-

Glove boxes.

60. Otomo, Gennosuke, Takatsu Takakura, Kioto-

Umbrella stands.

61. Saito Masakichi, Ginza, Kyobashi-ku, Tokio-

Tobacco boxes.

Lacquered travs.

Boxes.

Desk ornament.

Face powder box.

Lacquered instruments.

Tea service.

62. Sano, Kashichi, Shinyemoncho. Nihonbashi-ku. kio-

Tablets

63. Sanuki Lacquered Ware Merchants' Association. Kagawa-ken-

Cake vessels.

Coffee trays.

Tables

Boxes.

Censer stand.

Stand.

Inkstone box.

Travs. Cigarette box.

Balls.

Tea box.

Cake dish.

Cake bowl.

64. Sasaki, Takayasu, Honkokucho, Nihonbashi-ku, Tokio-

Cake dish.

65. Shibakawa, Matayemon, Fushimi-cho, Osaka-

Travs.

Bread trays.

Bowl.

Incense tray.

Plate.

Coffee plate.

Cake travs.

Wooden plate.

Photograph frame.

Lunch box.

Flower vases.

Tablet.

Cigarette cases.

Glove boxes.

Incense boxes.

Beer plates.

Screen.

66. Shibata, Matakichi, Hinodecho. Yokohama-

Necktie box.

Fan box.

Bureau.

67. Shizuoka Lacquered Ware Merchants' Association. Shizuoka-

Boxes.

Travs.

Panel boards.

Stands

Cabinets.

Tables.

Glove boxes.

Bureaus.

Bread plates.

Folding screens.

Doll's utensils.

Photograph racks.

Tablets.

Handkerchief boxes.

Button boxes.

Incense boxes.

Travs.

Ring casket.

Cake vessels.

Cigarette boxes.

Perfume cabinets.

Hat stands.

Stove screens.

Pen boxes.

Cigar holders.

Doors.

Desks

Small boxes.

Flower vase stands.

Lamp stands.

Flower vases.

Toilet cases.

Photograph frames.

Card plates.

Houses.

Mantel ornaments.

Book cases.

Stands.

Small boxes.

Coffee.

Needle cases.

Bowls. Needle boxes.

Cabinet.

Looking glass stand.

Tea box.

Lacquered ware.

Card boxes. Cake boxes.

Dust pans.

Bread plate.

Handkerchief boxes. Face powder boxes.

Perfume boxes.

Pen plate.

Postal card boxes.

Cake boxes.

Tobacco boxes.

Pins

68. Shikki Jusan Kwaisha, Aomori-ken-

Cake boxes.

Travs.

Photograph frame.

Cake vessel.

Flower basins with stands.

69. Shikko Goshikwaisha, Yumicho, Kyobash-ku, Tokio-

Boxes.

Letter holders.

Hanging shelves.

Ornament stand.

Cigar boxes.

Travs.

70. Shimidzu, Iwataro (Representative of Toyamaken Lacquer Ware Merchants' Association, Toyamaken-

Travs.

Tablets.

Handkerchief boxes.

Panel boards.

Cane

71. Shiratori, Zingoro, Sakamotocho. Nihonbashi-ku. kvo-

Tea caddies.

72. Shuzui, Shozaburo, Nagoya-Box and inkstone box.

Table

Cigarette cases.

Smoking set.

Lacquered ware.

Pen cases.

Incense boxes.

Trays.

Butter dish.

Box.

Pin box.

Face powder box.

Tea caddies.

Card trays.

Cake vessel.

Inkstone box.

73. Sudo, Masao, Shin-Suwa-cho, Koishikawa-ku, Tokyo-Flower vases.

Trays.

74. Sugiyama, Shunzo, Sioi-cho, Yokohama-

Book cases.

Tablets.

75. Suzuki, Kichigoro, . yama-cho, Nihonbashi-ku, Tokvo-

Incense boxes.

Trays.

Box.

Tanaka, Yahei, Shijo Yanagino-bamba, Kyoto-

Boxes.

Incense boxes.

Looking-glass stands.

Glove boxes.

Table.

Tray.

77. Tanaka, Yasuzumi, Iriyecho, Honjo-ku, Tokyo-Tooth brushes.

Tanaka & Company, Honmachi, Osaka-

Boxes.

Stove screen.

Tablet.

Cabinets.

Travs. Chest.

Mantel ornaments.

Fruit tray.

Postal card box.

Cake vessels.

Screens.

Glove boxes.

Beer travs.

Photograph racks.

Tetsuka, Heiyemon, Kitaho-79. rive-dori, Osaka-

Boxes.

Cigarette boxes.

Photograph rack.

Finger bowl.

Food vessels.

Buckets.

Panel boards.

Travs.

80. Tomita, Koshichi, Sawaragicho, Horikawa, Kioto-

Card holders.

Lacquered board.

Umbrella handles.

Tomon, Gohei, Azuchi-machi, 81. Osaka—

Cake boxes.

Fruit trays. Boxes.

Travs.

Toshiyasu, Bunshiro, Hyogo-82. ken-

Cigarette boxes.

Picture frames.

Handkerchief boxes.

83. Tsujimura, Yentaro, Tansumachi, Shitaya-ku, Tokio-

Box.

Mantel ornament.

84. Tsutada, Yeisaburo, Yawatasuji, Osaka-Cabinet. Tablets. Cigarette boxes. Coffee travs. Coffee cups with saucers. Fruit vessel. 85. Uwotsu Shikkokwai, Toyama-Travs. Flower vases. Penholders. Dust pan. Beer stand. Boxes.

86. Wajima Exhibitors' Association. Ishikawa-ken-

Travs.

Cigarette boxes. Stamp trays.

Finger bowls.

Flower vase stands.

Beer cups.

Stick holders.

Handkerchief boxes.

Toilet cases.

Boxes.

Tea trays.

Bowl.

Soup dish. Coffee set.

Clothes trays. Card trays.

Tables.

Glove boxes.

Flower vases. Tablets.

Cake boxes. Tea caddy.

Box.

Fruit boxes.

Inkstone box. Fruit plates.

Bowls.

Bread plates.

Paper boxes.

Towel travs.

Cigarette trays.

Clothes bars.

Fruit bowl.

Meat platter.

87. Wakamatsu Lacquered Ware Merchants' Association, Fu-

kushimaken-

Travs.

Glove boxes

Cake vessels.

Hat rack.

Lacquered board.

Boxes.

Cigarette boxes.

Flower vases.

88. WakasaLacquered Ware Merchants' Association, Fukuiken-

Clothes boxes.

Ornament stands.

Card trays.

Travs.

Clothes horse.

Cigarette boxes.

Photograph holders,

Letter box. Cake vessels.

Flower vases.

Boxes.

Smoking pipes.

Handkerchief boxes.

Glove boxes.

Coffee plates.

Photograph frames.

Canes.

Incense boxes.

Screens.

Penholders.

Bowls.

89. Watanabe, Kanyemon, Kanagawa-ken—

Stationery articles.

Vegetable vessels.

Trays.

Spice case.

90. Yamamuro, Asakichi, Sumiyoshi-cho, Yokohama—

Incense boxes.

Tablets.

Coffee trays.

Covered vessels.

Handkerchief boxes.

Photograph frames.

Glove boxes.

Samples.

Sticks.

Cue.

Stands.

Folding screens.

91. Yamanaka Lacquered Ware Merchants' Association, Ishikawa-ken—

Cake vessels.

Bowls.

Bread plates.

Flower pots.

Finger bowls.

Plates.

Tea caddies.

Travs.

Cigarette boxes.

"Sake" cups.

Pin boxes.

Flower vases.

Ornamental bowls.

Tablet.

Collar boxes.

Lacquered ornaments.

Boxes.

Watch holder.

Cake stand.

Beer cups.

Incense box.

Thread boxes.

Beer trays.

Beer trays

Ring casket.

Jewel casket.

Table.

Ash receivers.

Looking-glass stands.

Horse race.

Bread boxes.

Covered vessels.

Small plates.

92. Yasui, Shokichi, Tsukiji, Kyobashi-ku, Tokio-

Cigarette boxes.

Ring chests.

Boxes.

93. Yegami, Sadajiro, Nagasaki—

Lacquered wares.

Fancy Articles.

(Palace of Varied Industries.)

 Asai, Sekisei, Tajibana-cho, Nihonbashi-ku, Tokio—

Photograph frames.

 Chasenshoku, Kumiai (Tea Beatermakers' Association), Naraken—

Tea beaters.

3. Goto, Kamataro, Kanagawaken-

Mantel ornaments.

Boxes.

Glove boxes.

Postal card boxes.

Handkerchief box.

Inkstone boxes.

Cigarette boxes.

Incense boxes.

Incense travs.

Cake plates.

Cake vessels.

4. Honda, Tokujiro, Tennoji, Uyenomiya-machi, Osaka—

Flower vases.

Mantel ornaments.

- 5. Honda, Yosaburo, Nagoya— Pagoda.
- 6. Ishikawa-ken Chokoku Exhibitors' Association, Ishikawa-ken-

Tablets.

Inkstand and ink stone box.

Mantel ornaments.

Panels for doors.

Cigarette case.

Ring rack.

Watch stand.

Ring case.

Tobacco boxes.

7. Ito, Kohei, Niigata-

Fan.

Cigarette boxes.

Cigarette tray.

Sample board.

8. Kanazawa, Naraichi, Naraken-

Fancy articles.

9. Kato, Chohei, Gifu-

Glove boxes.

Cigarette boxes.

Cabinets.

Photograph holders.

Photo stand.

Handkerchief boxes.

Carvings.

Cigar boxes.

10. Kato, Kikumatsu, Yagenboricho, Nihonbashi-ku, Tokio—

Cigar case. Card tray.

Cigar box.

Incense box.

Buckle.

Cravats.

Watch ornaments.

Umbrella handle.

Flower vase.

 Katsura, Mitsuharu, Tokio fu—

Cigarette case.

 Kawase, Masashichi, Tomotsucho, Osaka—

Lady's purse.

Cigarette cases.

Pocketbooks.

Card cases.

13. Kobayashi, Tobei, Tori-Abura-cho, Nihonbashi-ku, Tokio—

Purses.

 Komaki, Bunjiro, Kanagawaken—

Frame work.

Doily.

Spoon.

Light shade.

Pin cushion.

 Kutsutani, Takijiro, Ikenohata, Naka-cho, Shitaya-ku, Tokio-

Cuff buttons.

Buckles.

Necktie pins.

Tobacco boxes.

Cigarette cases.

16. Kinukawa, Yeikichi, Hyogo-

Mantel ornaments.

Gongs.

17. Matsubashi, Masazo, Awajicho, Osaka—

Pocketbooks.

Card case.

Cigarette case.

Purses.

Bags.

 Matsuyoshi, Kahei, Bingomachi, Osaka—
 Toothpicks.

Toothpick cases.

19. Miyata, Totaro, Benten-dori,

Yokohama— Handkerchief box.

Handkerchief box.

Glove boxes.

Plate doilies.

20. Miyauchi, Ryosuke, Tori-Shimo-cho, Nihonbashi-ku, Tokio—

Photograph frames.

21. Nissei Kwan, Hyogo-ken— Fancy articles.

22. Okamoto, Rihei, Motomachidori, Kobe—

"Netsuke."

23. Sakurai, Yeizo, Sukiya-cho, Shitaya-ku, Tokio— Cigarette cases. 24. Suzuki, Kojiro, Suga-cho. Asakusa-ku, Tokyo— Travs.

 Takata, Saijiro, Tokyo— Toothpicks.
 Purses.

26. Takito & Company, Nagoya— Tablets.

27. Tokuoka, Sakubei, Minami-Kinhoji-machi, Osaka—

Purses. Pocketbook.

Button cases.

Card cases.

Bags.

Dags.

28. Toshiyama, Yonejiro, Minami-Kinhoji-machi, Osaka— Flower vase.

29. Watanabe, Tokuhei, Shinyemon-cho, Nihonbashi-ku, Tokio—

Mantel ornaments.

 Yamamoto, Scizo, Honzaimoku-cho, Nihonbashi-ku, Tokio—

Cigarette cases.

Pocketbooks.

Bag.

31. Yamanaka, Go, Kitahawa, Osaka—

Trays. Lamps.

32. Yanagiwara, Tsunchiro, Shimane-ken—

Tablet.

Glove boxes.

Collar boxes.

Tobacco boxes.

Yokoyama, Shin-ichiro, Hash-33. imoto-cho, Kanda-ku, To-

Bags. Satchels.

- 34. Yoshizaki, Tsuncshichi, Minan: i-Kinhoji-machi, Osaka-Purses.
- 35. Yubu, Uyemon, Toyamaken-Photograph frame. Stands.

Ivory and Tortoise Shell Works. (Palaces of Manufactures and Varied Industries.)

Ihei. Yawata- Fujiwara, machi, Osaka-Mantel ornaments. Umbrella handle.

2. Futayedo, Teijiro, Nagasakiken-

Small boxes.

Folding fans. Tablet. Toilet articles. Hair dressing articles. Combs. Pins. Hat pins. Lady's card cases. Lady's spectacles. Gentleman's combs. Photograph frames. Photograph albums. Paper knives. Cigarette boxes. Cigarette cases.

Dining utensils.

3. Ikedo, Chotaro, Nagasakiken-Cigarette cases. Tablet. Gentleman's toilet set. Brushes. Lady's spectacles. Gentleman's comb. Paper knife. Combs. Card cases. Lady's fancy combs. Hat pins. Hair pins. Folding fans. Pin cases. Looking-glasses.

4. Ikeda, Seisuke, Shinmonzen, Kioto-

Mantel ornaments.

- 5. Kaneda, Kanejiro, Oga-cho, Kyobashi-ku, Tokio-Mantel ornaments.
- 6. Kato. Tovoshicho, Bakuro-Nihonbashi-ku, Tocho. kio-

Mantel ornaments. Toilet sets.

Combs.

Card cases.

Umbrella handles.

Satchel.

Folding fans.

Candlesticks.

Book marks.

7. Kikuchi. Yeijiro. Kita-Tawara-cho. Asakusa-ku. Tokio-Satchel.

Folding fan.

Cigar cases.
Gourds.
Hair ornaments.

Hair orname

Fans.

Tablet.

- Kobayashi, Kojiro, Suga-cho, Asakusa-ku, Tokio—
 Mantel ornaments.
 Folding screens.
 Bookcase.
- Kayama, Takejiro, Teramachi, Oshikoji, Kioto—
 Mantel ornaments.
- Murata, Kichigoro, Yokoyama-cho, Nihonbashi-ku, Tokio—
 Mantel ornaments.

Flower vases.

Cake vessel.

Umbrella handles.

Paper knives.

Box.

Card cases.

"Netsuke."

 Nakamura, Sosuke, Tachibana-cho, Nihonbashi-ku, Tokio—

Mantel ornaments.

- Noboriyama, Chozo, Ginza, Kyobashi-ku, Tokio— Mantel ornaments.
- Nomura, Yozo, Hon-cho, Yokohama—
 Mantel ornaments.
- Noboriyama, Kinzo, Masagocho, Yokohama—
 Mantel ornaments.

 Okamoto, Rihei, Motomachi, Kobe—

"Netsuke."

 Omachi, Yeijiro (Ogibashicho, Fukagawa-ku) and Yoyotsugi, Tomigoro (Yagenbori-cho, Nihonbashi-ku), Tokio—

Mantel ornaments.

17. Sakata, Yeitaro, Nagasakiken—

Toilet articles.

Glove box.

Plates.

Picture in frame.

Boxes.

Spoon and fork.

Combs.

Tobacco cases.

Brushes.

Spectacles.

Hair pins.

Card cases.

18. Shibata, Matakichi, Hinodecho, Yokohama—

Mantel ornaments.

"Netsuke."

 Soma, Kiminosuke, Heiyemon-cho, Asakusa-ku, Tokio—

Mantel ornaments.

 Suzuki, Nobuyoshi, Nishi-Misuji-machi, Asakusa-ku, Tokio—

Mantel ornaments.

 Suzuki, Kichigoro, Yokoyama-cho, Nihonbashi-ku, Tokio—

Mantel ornaments

22. Tanaka, Iwakichi, Nagasakiken-

Card cases.

Combs.

Brushes.

Boxes.

Pins.

Spectacles.

Tablets.

Tobacco cases.

Toilet cases.

Umbrella handle.

Photograph frames.

Folding fans.

Buckles.

Spoon and fork.

Paper knives.

Tortoise shell.

Gentleman's toilet set.

Lady's toilet set.

23. Takenoya, Daisaburo, Nishi-Take-cho, Honjo-ku, Tokio-

Mantel ornaments.

24. Uyeno, Shinshichi, Bukkoji, Yanaginobamba, Kioto-

Combs. Hairpins.

25. Yamanaka, Shigejiro, Kitahama, Osaka-

Mantel ornaments.

26. Yasaki, Yeizo, Nagasaki-Match box.

Pin.

Nail-file case.

Basket Works. (Palace of Manufactures.)

Shinchiku, Chiam-sian-lam,

Formosa-

Bamboo baskets.

2. Chiam-tin-kiong, Shinchiku, Formosa-

Bamboo basket.

3. Fujikawa, Ruizo, Taihoku, Formosa-

Pocketbooks.

Cigarette cases.

4. Fukui, Genjiro, Kitanakadori, Yokohama-

Pen travs.

Trays.

5. Hattori, Seisaburo, Bakurocho. Osaka-

Osier valises.

Dining utensil.

Glove cases.

Handkerchief case.

Cake vessel.

Letter holders.

6. lidzuka, Kikuji, Tochigiken-

Flower baskets.

Cake baskets.

Traveling baskets.

7. Inaba, Shaku, Koshun, Formosa-

Cigarette cases.

8, Ishizeki, Sanetaro, Minami-Kyobashi-ku, denma-cho. Tokio-

Basket work trays.

Paper boxes.

Flower vessels.

o. Kakuriu Goshikwaisha, Hiogo-ken-Baskets.

Valises.

10. Kosuge, Kenzo, Shimomakicho. Nihonbashi-ku. kio-

Flower baskets.

Travs.

11. Kuroda, Denjiro, Oshikoji, Tominokoji, Kiotc-

Dipper.

Flower vessel.

Knives, forks and spoons.

Cake vessel.

Fan rack

12. Matsuki, Bunkio, Kano-machi, Kobe-

Valises.

13. Morita, Shintaro, Sanjo-Hahashihigashi, Kiote-

Stools.

Flower baskets.

Waste paper baskets.

Baskets.

Basketwork valise.

14. Nakabe, Toranosuke, Sannomiya, Kobe-

Valises.

Handerchief boxes.

Glove boxes.

Collar box.

Flower basket.

Plate basket.

Waste paper basket.

Bottle case.

Lamp shades.

Slippers.

Soap boxes.

Satchel.

15. Nakai. Go. Sannomiya, Kobe-

Bamboo work samples.

16. Oka, Ihei, Tantaya-machi, Osaka-

Hanging flower baskets.

Flower baskets.

Flower pot baskets.

Rishichi. 17. Okubo.Kagawaken-

Bamboo works.

Satchels.

Rattles.

Tea strainers.

18. Seishin Kwaisha Brauch. Kobe-

Dress suit cases.

Baskets.

Tea boxes.

Pails.

Valise.

Covers.

Paper baskets.

Handkerchief cases.

Glove cases.

Bread boxes.

Paper boxes.

Satchels.

Waste paper baskets.

Cake vessels.

Letter holders.

Travs.

Folding screens.

19. Shizuoka Lacquered Ware Merchants' Association, Shizuoka-

Cake baskets.

Trays.

Cages.

Miniature houses.

Cake bowls.

Photograph frames.

Canes.

Waste paper baskets.

Hats.

Soap baskets.

Glove baskets.

Handkerchief boxes.

Cake travs.

Flower vessels.

Folding screen.

Cake vessels.

Insect cages.

Bread baskets.

Fruit baskets.

Photograph racks.

20. Sudzuki, Kojiro, Suga-cho, Asakusa-ku, Tokio-Flower baskets.

Taiko Hat and Matting Manufacturing Co., Byoritsu, Formosa-

Plate doilies.

- Takata, Namiya, Iwate-ken-Flower vessel.
- Co., Kitahama, Yamanaka 23. Osaka_ Flower baskets.

Baskets.

GROUP 35.

Articles for Traveling and for Camping.

(Palace of Manufactures.)

- Akamatsu, Kumashichi, Minami-Honmachi, Osaka-Trunk.
- 2. Fujikawa, Rinzo, Taihoku, Formosa (installed in Japanese section, Palace of Agriculture).

Trunks.

Hayami, Kichihei, Teramachidori. Kioto-

Osier trunk.

4. Inaba, Shaku, Koshun, Formosa-

Valises and material.

Hayashi, Daisaku, Kitakintaromachi. Osaka (installed in Japanese section, Palace of Agriculture).

Trunks.

6. Kato, Yeizo, Gifu-ken-Osier valises.

7. Kawasaki. Hiotaro, Osakafu—

Hammocks.

Kitamura, Chozayemon, Hiogo-ken-Osier valises.

o. Kudankago, Kiubei, Minamikintaro-machi, Osaka-Osier valises.

10. Midzuhara, Geniiro, Shinsaibashi-dori, Osaka-Trunks.

11. Nakaye, Sennan, Shin-machi, Osaka-Trunks.

- 12. Nishibori, Yaichi, Gifu-ken-Osier valises.
- 13. Ogawa, Jisuke, Bakuro-cho, Osaka-Osier valises.
- 14. Shindo, Kumajiro, Sanjo-dori, Kioto-Osier valises.

15. Uyeda. Gisaburo. Hiogoken-

Osier valises.

16. Yendo. Kakichiro. Hiogoken-

Osier valises.

Valises.

Paper box. Card case.

GROUP 36.

Tovs.

(Palace of Manufactures.)

- 1. Asai, Schisei, Tachibuna-cho, Nihonbashi-ku, Tokio-Toy bird cages.
- 2. Asaoka, Iwataro, Hatago-cho. Kanda-ku, Tokio-Toys.
- 3. Fukui, Genjiro, Kitanaka-dori, Yokohama— Toys.
- Fukuoka & Hakata Traders' Association, Fukuokaken-

Dolls.

- 5. Hakone, Bussan, Goshikwaisha, Kanagawa-ken-Toys.
- 6. Hattori, Manji, Iida-machi, Kojimachi-ku, Tokio-Dolls.

Samples of toys.

7. Inouye, Scisuke, Fukuokaken-

Dolls

8. Kioto Joshi-Shugei Gakko-"Oshiye."

- 9. Kitashimizu, Katsuzo, Tominokoji-dori, Kioto-Toys.
- 10. Kojima, Hyakuzo, Goken-cho, Kanda-ku, Tokio-Tovs.
- 11. Marutoku Taniguchi Branch Store, Nunobiki-dori, Kobe-Toys. Birds.
- 12. Misaki, Seijiro, Shijo-dori, Kioto-Dolls.
- 13. Murai, Kiyemon (Representative of Osaka Doll Manufacturers' Association), Kita-Kintaro-machi, Osaka-Dolls.
- 14. Murakami, Atsushi, Maruyama. Kioto-Toys.
- 15. Murakami, Go, Shirokane-Daimachi, Shiba-ku, Tokio-Dolls. Toys.
 - Murase, Shichisaburo, Aichiken-Dolls.
- 17. Nakai Company, Sannomiya, Kobe-Toy chairs.
- 18. Obitani, Shishichi, Nagasaki-Kites. String.
- 19. Ihei. Tamaya-cho, Osaka-Whistles.

20. Oki. Heizo. Shijo-dori. Kioto-

Dolls

21. Okuda, Riujitsu, Higashi-Kuromon-cho, Shitaya-ku, Tokio--

Toys and dolls.

22. Sakuta, Magobei, Bingo-machi, Osaka-

Dolls.

23. Sato, Tetsujiro, Mishiro-cho, Nihonbashi-ku, Tokio-Stereoscopes. Photographs.

24. Shinano, Kametaro, Kita-Kinhoji-machi, Osaka-Tovs.

25. Suzuki. Kojiro. Suga-cho, Asakusa-ku, Tokio-Dolls.

26. Tajimi Trading Co., Gifuken-

Toys.

27. Takada, Scijiro, Muko-Yanagizvara-machi. Asakusa-ku. Tokio-

Toys.

Takenouchi, Masujiro, Nedzu-Kata-machi, Hongo-ku, Tokio---

Dolls.

Takenouchi, Takizo, Hiogoken-

Cigar holder.

Cake vessel.

Paper boxes.

Bureaus.

Photograph holders.

30. Tanabe, Zenshiro, Kamezawacho, Honjo-ku, Tokio-Toys.

31. Tanaka, Shokichi, Kanagawaken-

Toy eggs. Toys.

Taniguchi, Tokujiro, Mushanokoji-dori, Kioto-

Dolls

Toys.

Birds.

33. Wakano, Sobei, Osaka-fu-Kites.

34. Watanabe, Kanyemon, Kanagazva-ken-

Self-shampooing device. Cups. Toys.

Watanabe, Tsunatada, Kana-35. gawa-ken-

Educational toys.

36. Yasni, Kiyoshi, Nishiki-cho, Kanda-ku, Tokio-Models of animals.

GROUP 37.

Decoration and Fixed Furniture. (Palace of Varied Industries,)

I. Kawashima, Jimbei, Kyoto-A room with decorative furniture.

The design of this room is by Mr. Jimbei Kawashima, artist to the Imperial Household. The fabrics and embroideries are from his factory in Kyoto, Japan.

The carving, lacquering, casting, etc., are by specialists in each line, and were executed under the super-intendence of Mr. Kawashima.

The room being designed for a study, is fitted up in the "current style" and its decoration belongs to a new style strictly in Japanese taste.

The wood used as building material is mulberry, which is indigenous to Japan.

Bamboo is also used, since it is a specific product of the East. Bamboo that grow in Japan are particularly straight and hard-grained.

The lacquer work is done solely by litharge painting, an art much cultivated during the Nara Epoch.

The ceiling represents the marks on tortoise shell. The tortoise is regarded as a type of longevity. Being supposed to live a myriad years, it suggests an auspicious meaning. The lines that describe the hexagon in the center are produced in six different directions, dividing the whole ceiling into seven compartments. This is an entirely novel plan, as all common coffered ceilings are figured in squares. Inside the hexagon is laid a silk embroidery representing phoenix.

The six compartments around the hexagon—are—filled—with—lattice work—fretted and netted alternately—of split bamboo, browned by smoking process.

Where the ceiling joins the walls it has semicircles described by lines displaying conventionalized forms of birds in imitation of designs in the Sho-so-in collection. The interspaces are filled with a net work of bamboo having underlying gold brocade.

 The walls are draped with silk damask bearing a design of chrysanthemum leaves on a dull silver ground.

The skirting is in the form of a bamboo fence with alternate elevations on the top, so as to show the projecting and receding parts of the fence. The supporting shafts are made of mulberry wood.

The fence is a network of browned bamboo, carrying in gold lacquer a decoration of various figures of primeval vessels and implements such as we found in dolmens, or sepulchral mounds.

The curtain hanging over the doorway is of Shigara Embroidery, representing flowers and birds after the Todaiii fashion. The curtains hanging over the windows are of Tsudzure-Nishiki tapestry, representing cherry trees with shrubs, flying birds and running animals, which are enclosed in an oblong circle with irregular depressions at the four corners. This figure is called Kwagata. On the outside of this enclosure are flowers, birds and animals so intermixed that the whole presents a rich and gorgeous appearance. The figures and designs are derived from decorations seen in the Sho-so-in collection, as also from a piece of old tapestry dating from the Tempo era and preserved to this day on account of its special design and weaving. The colored threads left free at the end form fringes, which is the original form of all fringes. The pendant cords are knotted in the *Hankiu* style, namely, that used by a Jogu prince in olden times.

The floor is in mosaic composed of irregularly shaped pieces of hard wood. It presents an appearance of cracked ice. This is designed to contrast with the crustaceous appearance of the ceiling.

2. Kyoto Chamber of Commerce, Kyoto—

A salon.

The Kvoto Salon consists of two wings connected by a corridor in front and by a passage in the partition wall separating the two. Access to either wing may be had by means of sliding screen doors in the passage as well as around the front corridor. The right wing is called Haru-no-ma, or the Hall of Spring, and the left wing Aki-no-ma, or the Hall of Autumn. The furnishing of these rooms is typical in every detail of the seasons which they represent, every piece of furniture, every corner of rooms, from the tables and chairs to the window curtains, walls, ceilings, and even the floors, being decorated with the designs or patterns representing the seasons.

The most ingenious productions of Japanese art, done upon the cost-

liest fabrics, depicting Spring scenes and flowers, and the rare house decorating articles, including potteries, vases and folding screens with the pictures or emblems of the season, are conspicuous features seen in the Hall of Spring. The window curtains of this room are of figured silk crape, embroidered with cherry blossoms and shaded at their lower parts. The walls, ceilings and screen doors are covered with embroidered cut velvet on which are worked the scenes of the season, such as Mount Fuji as seen through the Spring mist, or pictures of spring flowers and birds. The tables and chairs are in keeping with the general scheme of design. The two open sides of the Hall are hung with graceful bamboo shades, also with the design in harmony with the season.

Maples and chrysantheniums. which are the most pleasant sights prevalent in the Autumn of Japan, constitute the chief feature that adorns the Hall of Autumn. On the walls, partition screens, and screen doors, are painted the crimson leaves of the maple and the gorgeous petals of the chrysanthemum and the Aki-gusa, or the Autumn plants. Nor does the decoration lack the moon, which is another Autumn sight in Japan. The curtains of this Hall are of rich Ro, or armour silk, worked with butterflies, an insect which attains great beauty during Autumn in Japan. The tables and chairs are of chrysanthemum pattern, and the floor is covered with matting decorated with scattered maple leaves. Bamboo shades with similar design hang on the two open sides of the hall.

 Sudzuki, Toramatsu, Nagoya— Doors.
 Windows.

4. Yamanaka & Co., Osaka— A room with decorative furnitures.

The object of this exhibit, the Nikko Temple Room, is to display to the world the beauty and other advantages of Japanese architecture, especially of the Tokugawa architecture, which found its highest expression in the temples of Nikko. The building is the result of vears of study, labor and much expense. The far-famed Nikko temples, as well as other noted temples of earlier creation, have furnished motives for it, and the parts copied have been reproduced, not only in their general style, but in every de-The very materials are the same, though in many cases very difficult to produce at the present day. The workmanship is such as was formerly done by the most noted artists for great princes and daimios, the founders of temples and builders of palaces. The furniture and other objects included in the exhibit are modern rendering of articles formerly made for the use of the imperial family and the great nobles.

GROUP 38.

Office and Household Furniture.

(Palaces of Manufactures and Varied Industries.)

1. Arai, Taiji; Moko, Taihoku, Formosa—

Tables. Bureau.

2. Hashiguchi, Norio; Taichu, Formosa—

Hat rack.

3. Kono, Takejiro; Taichu, Formosa—

Round table.

GROUP 41.

Hardware.

(Palace of Manufactures.)

- Mizoguchi, Yasunosuke, Tominokoji-dori, Kioto—
 Iron kettles.
- Morioka Iron Kettle Manufacturers' Association, Iwateken—

Iron kettles.

- Ono Tadashi, Minamidenmacho, Kyobashi-ku, Tokio—
 Automatic fire-proof door.
- 4. Sono, Yasuke, Bakuro-cho, Osaka—

Iron kettles. Censers. Mantel ornament. Flower vases.

100

GROUP 45.

Porcelains.

(Palace of Varied Industries.)

1. Araki, Shinjiro, Minami-Otamachi, Yokohama-

Flower vases.

Plates.

Tea pots.

Soup bowls.

2. Awaji Seito Co., Hiogo-ken-

Flower vases.

Plates.

Tablets.

Tea set.

Finger bowls.

Pitchers.

Beer mugs.

Biscuit boxes.

Ash receivers.

Pepper pot.

Mustard pot.

Milk pitchers.

Flower basins.

Bowls.

Kagoshima-3. Chinjukwan, ken-

Flower vases.

Censers.

Mantel ornaments.

Pitcher.

4. Fujio, Suveji, Hiogo-ken-

Bowls.

Plates.

Censers.

Tea pots.

Flower vases.

5. Fukuda, Genjiro, Moto-machi, Kobe-

Flower vases.

Bolls.

Ice cream plates.

Ornamental bowls. Plates.

Soup bowls.

Tea service.

Coffee service. Chocolate cups.

Sugar bowl.

Chocolate pots.

Milk pitchers.

Tea strainer.

Finger bowls.

Censers.

Fruit plates.

6. Fukushima-ken Futabagun Ohori Tokigyo Kumiai, Fukushima-ken-

Tea pots.

Pitchers

Flower basin.

Beer mugs.

7. Hamada, Rokuro, Kumamoto-

Flower vases.

Cake bowl.

Hayakawa, Kahei, Fukuokaken-

Flower basins.

Censer.

Mantel ornaments.

Plates.

9. Hodota, Takichi, Sakai-cho, Yokohama-

Plates.

Bowls.

Jars.

Tablets.

Flower basin.

10. Hori, Tomonao, Miye-ken— Tea sets.

rea sets.

Incense box.

Mantel ornament.

Coffee sets.

Tobacco boxes.

Water basins.

Water bottle.

Pots.

Tea pots.

Beer mugs.

Ash receiver.

Pitchers.

Card receiver.

11. Hyochiyen, Nagoya-

Flower vases.

Fancy jars.

Flower bowls.

Mantel ornaments.

Censers.

12. Idzumi, Hiojiro, Sannomiya, Kobe—

Kooe-

Bowls.

13. Ikeda, Seisuke, Shimmonzen, Kioto—

Kibib-

Bowls.

Tea service.

Flower vases.

Box.

14. Ina, Hatsunojo, Aichi-ken-

Flower pots.

Flower vases.

Tobacco cases.

Mantel ornaments.

Bowls.

Stick stands.

Ash receivers.

15. Kamei, Centaro, Fukuoka-

ken-

Flower vases.

Censer.

 Kasugai, Genjiro, Sumiyoshicho, Yokohama—

Flower vases.

Tablets.

Covered dish.

17. Kato, Kosaburo, Benten-dori,

Yokohama-

Tea sets.

Ladies' toilet articles.

Flower vases.

Flower bowls.

Tablets.

Ornamental plates.

Cups and saucers.

Plates.

18. Kato, Haruji, Aichi-ken-

Flower vases.

Censer.

Coffee cups.

Tobacco cases.

Finger bowls. Flower dishes.

19. Kato, Sakusuke, Aichi-ken-

Flower vases.

Milk pitchers.

Bowls.

Meat plates.

Tea plates.

Tea places.

Tea service.

Bowls.

Finger bowls.

Chocolate pots.

20. Kato, Yonetaro, Minami-Naka-dori, Yokohama-

Coffee cups.

Plates.

Tablets.

Tea caddies.

Flower vases.

21. Kawakami, Fusaichi, Shimaneken-

Flower vases.

Covered dishes.

Cake plates.

Pitchers.

Tea pots.

Beer mugs.

Milk pitchers.

"Sake" cups.

Tea sets.

Coffee plates.

Plates.

Ash receivers.

22. Kawamoto, Yeijiro, Kiyomi-

zu, Kioto-

Flower basins.

Basin.

23. Kawamura-gumi, Miye-ken-Flower vases.

Censers.

Mantel ornaments.

Tea pots.

Ash receivers.

Tobacco cases.

Match box.

Cake vessels.

24. Keita, Masataro, Kagoshima-

Flower vases.

Cake dishes.

Censers.

Ornamental bowl.

Coffee cups.

25. Kimura, Katsuji, Shimoya-

mate-dori, Kobe-

Flower vases.

Jars.

Coffee cups.

Covered dishes.

Censer.

Plate.

26, Kinkozan, Sobei, Awada, Ki-

Flower vases.

Censers. Bowls.

Plates.

Jars.

Covered dishes.

Umbrella stands.

Flower pots.

27. Kioto Tojiki Co., Shirakawa,

Kioto-

Flower vases.

28. Kishida, Tozaburo, Kita-Na-

gasa-dori, Kobe-

Flower vases.

Plate.

Bowl.

29. Koyama, Tsunejiro, Awajicho, Kanda-ku, Tokio-

Flower vases.

Mantel ornament.

Kumamoto, Kinroku, Kagoshi-30.

1110----Flower vases.

Cake dish.

Plate.

Censers.

Mantel ornaments.

Coffee cups.

Kusube, Sennosuke, Sanjo,

Kioto-

Flower basins.

Fire boxes.

Plates.

Censers.

32. Shofu, Kajio, Kioto-

Tea sets.

Chocolate set.

Flower vases.

Tobacco.

33. Matsuki, Bunkio, Kano-machi, 38. Kobe—

Flower vases. Milk pitchers. Flower pots. Tea pots.

34. Matsunaga, Tokujiro, Hatagocho, Kanda-ku, Tokio—

Flower vases.

35. Matsuo, Kwanzo, Yamamotodori, Kobe—

Flower vases.

Jar.

Punch bowls.

Ornamental plates.

Censer.

Lanterns.

36. Mawatari, Shunro, Sakayecho, Kobe-

Lantern.

Flower vases.

Bowl.

Meat plates.

Bread plates.

Ice cream dishes.

Ash plates.

Plates.

Tea sets.

Milk bowls.

Pots.

Large dishes.

Censers.

Mantel ornaments.

37. Mimura, Denjiro, Ibarakiken—

Jar with cover. Flower vases. Flower pot. 38. Miyagawa, Hannosuke, Kanagawa-ken-

Flower vases.

Ornamental plates.

Basins.

Bowls.

Water reservoir.

Mantel ornaments.

39. Momoi Tatsuo, Motohamacho, Yokohama —

Flower vase.

40. Mori, Chosaburo, Fukuokaken-

Flower vases.

Plate.

41. Nagaye, Tasaburo, Nunobikidori, Kobe—

Censer.

Plate.

Bowl.

Flower basins.

Jar.

Buttons.

42. Nakabe Toranosuke, Sannomiya, Kobe—

Basins.

Lantern.

Umbrella stands.

Flower pots.

Lamp basket.

Plate and coffee cups.

Flower basins. Beer mugs.

Ash receivers.

Pitchers.

Tea pots.

Flower vase.

Cake dishes.

43. Nakamura, Yeitaro, Minami-Sakuma-cho, Shiba-ku, Tokio--

Ornamental plate.

Plates.

Censer.

Towers.

Ladies' buttons.

44. Nihon Togwa Kyokai, Honcho. Yokohama-

Tablets.

Plates.

Flower vases.

Pitcher.

Tea set.

Coffee cups.

Covered dishes.

Bowls.

Flower basins.

45. Oda, Jinzo, Ota-machi, Yokohama-

Tea pots.

Pitchers.

Sugar bowls.

Tea sets.

Cups and saucers.

46. Oguri, Uhci, Nagasaki-ken-Mantel ornament.

Tea caddy.

47. Okamoto, Rihei, Motomachidori. Kobe-

Flower vases.

48. Otsuka, Chuji, Tochigi-ken-Pitchers.

49. Sakamoto, Chujiro, Awaza-Naka-dori, Osaka-

Bowls.

Censer.

Plates.

Flower vases.

50. Sasaki, Rotaro, Yehime-ken-Mantel ornaments.

Tablet.

51. Seto Tojikisho Dogio-Kumiai. Aichi-ken-

Plant pots.

52. Shibata, Matakichi. Kanomachi, Kobe-

Tea sets.

Ice cream dishes.

Coffee sets.

Bowls.

53. Shibata, Matakichi, Hinodecho, Yokohama-

Tea sets.

Ice cream sets.

Berry sets.

Cake dish.

Tobacco box.

Plates.

Bowl.

Tea pot.

Toothpick boxes.

Tea set.

Coffee cups and coffee set.

54. Shigaraki Porcelain Dealers' Association, Higo-ken-

Cane holders.

Plant pots.

Tea bottle. Flower vases.

Stool.

Water basins.

Pots.

55. Shimada, Taro, Owari-cho, Kyobashi-ku, Tokio-

Picture frames.

Flower vases.

Lanterns.

Mantel ornaments. Plant pots. Ash dishes.

Tea sets.

Dinner sets.

56. Shimamura, Shingo, Teramachi-dori, Kioto—

Tea sets.

Chocolate sets.

Berry set.

Fish dishes.

Plates.

Ice bowls.

Cake vessels.

Pitchers.

Flower basins.

Censers.

Flower pots.

 Shimizu, Moriye, Aichiken— Bowls.

Flower vases.

Ornamental plate.

Flower pots.

Mantel ornament.

58. Shimizu, Yazo, Motomachidori, Kobe—

Dinner set.

Biscuit bowls.

Chocolate pots.

Chocolate pots.

Cups and saucers. Tea sets.

Y 24

Flower vases.

59. Suya, Kuhei, Sannomiya, Kobe—

Flower vases.

Tooth brush stand.

Mantel ornament.

Bowl.

Censers.

Plates.

CCHSCI

Flower pots. Ash receivers.

Toilet set.

60. Suzuki, Kichigoro, Motomachi, Kobe-

Frame.

Flower vase.

Tea sets.

Bread plate.

61. Susuki, Kichigoro, Yokoyamacho, Nihonbashi-ku, Tokio-

Flower vases.

Card plates.

Flower pots.

Tablets.

Flower basins.

Tea set.

62. Sudzuki, Kinyemon, Kita-Nagasa-dori, Kobe-

Flower vases.

Cups and saucers.

64. Tateishi, Jiyemon, Motomachi, Kobe—

Flower basins.

Jars.

Mantel ornament.

 Takahashi, Dohachi, Kiyomizu. Kioto—

Flower vase.

Censers.

censers.

Ink stands.

66. Takashima, Yunosuke, Komagata-cho, Asakusa-ku, Tokio-

RIO-

Flower vases.

Censers.

Cup.

Incense box.

Bowl.

67. Takatori, Kaichi, Fukuokaken—

Flower vases.

Censer.

Mantel ornament

Ash receivers.

Plates.

68. Takebe, Junzo, Nakayamatedori, Kobe-

Flower vases.

Coffee cups.

69. Takemura, Yusaburo, Onotsuye-dori, Kobe—

Gas stands.

Flower vases.

Basins.

Umbrella stands.

Tea pots.

Watch holders.

70. Tanaka, Tomosaburo, Ibaraki-

Vase with cover.

Flower vases.

Flower pots.

71. Taniguchi, Yojiuro, Motomachi, Kobe-

Flower vases.

Tea set.

Mantel ornament.

Salt cellars.

Plates.

Covered dishes.

Censers.

Tooth brush stand.

Egg cups.

Bowls.

Flower pots.

Fruit dishes.

Ice cream set.

Chocolate dish.

Beer mugs.

72. Tanto, Kabushiki Kwaisha, Awaza-shimo-dori, Osaka—

Milk pitchers.

Flower pots.

Toilet basins.

Flower basins.

Tea sets. .

Coffee cups.

Beer mugs.

73. Tashiro, Seiyemon, Fukushimaken-

Flower vases.

Tobacco bottle.

Ash pan.

Small flower vases.

74. Toda, Saitaro, Hiogo-ken-

Censer.

Flower vases.

Pitcher.

75. Togo, Jusho, Kagoshima-

ken-

Flower vases.

Mantel ornaments.

Censers.

Insect cages.

Plates.

76. Tomimura, Tomiichi, Kitana-

gasa-dori, Kobe-

Flower pots.

Rowls.

Flower basins.

Cups and saucers.

Chocolate cups and saucers.

Milk pitchers.

Sugar bowl.

Tea pots.

Umbrella stands.

Mantel ornaments.

77. Tsuji, Osaka Branch Store, Utsubo-Uye-dori, Osaka—

Coffee set. Beer mugs.

Tablet.

Flower vases.

Fire box.

Cigarette case. Ash receivers.

78. Watano, Kichiji, Honcho, Yo-

kohama— Tablet

Flower vases.

Mantel ornament.

Flower basins.

Tea set.

Cake plates.

Meat plates.

Coffee cups and saucers.

Tea cups and saucers.

Censers.

Bowls.

Covered dishes.

Flower pot.

79. Watatani, Heibei, Honcho,

Yokohama—

Pitcher.

Mantel ornaments.

Censer and flower basin.

Flower basins.

Bowls.

Coffee pots.

Cups and saucers.

Tea set.

Chocolate set.

80. Yabu, Meizan, Dojima, Osa-

ka-

Ornamental plates.

Tea cups.

Jars.

Flower vases.

Incense box.

Boxes.

Bowl.

Tea pots.

Tea pois.
Tea caddies.

Censers.

Cup.

Pitcher.

81. Yagi, Yeikichi, (Representative of Tokoname Trading

Co.), Aichi-ken-

Flower vases.

Flower pots.

Bowls.

Umbrella stands.

Ash receivers.

Flower basins.

Tobacco boxes.

Tea pots.

82. Yamanaka & Co., Kitahama,

Osaka-

Dining utensils.

Utensils.

Flower basin.

Coffee cups.

Lamps.

83. Yamashita, Toyozo, Aichi-

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Flower vases.

Cups.

Mantel ornaments.

Beer mugs.

Coffee cups.

Pitchers.

84. Yasuda, Fukuzo, Matsuwara.

Kioto-

Flower basins.

Basins with stand.

Bowl.
Plate.
Censers.
Tea pots.

Earthenware.
(Palace of Varied Industries.)

 Aidzu, Tojiki, Dogyo, Kumiai, Fukushima-ken—
 Covered dishes.

L

Jar.

Tea pots.

Coffee pot.

Pitcher.

Sugar jar.

Tea set.

2. Aoki, Jinichiro, Saga-ken-

Bowls.

Large bowls.

Umbrella stands.

Flower basins.

Plates. Covered dishes.

Salad dishes.

3. Aoki, Tatsushiro, Gifu-ken— Coffee cups.

Cups.

Plates.

"Sake" cups.

Rice bowls.

Tea pots.

Finger bowls.

Flower vases.

Milk pitcher with sugar bowl.

Bowls.

Tea cups. Inkstands.

Mantel ornaments.

Cake dishes.

Travs.

Soup plates.

4. Fukunaga, Chuji, Saga-ken-

Flower cases.

Jars.

Bowls.

Tea set.

Plates.

Covered dish.

Coffee cups.

Mantel ornaments.

Dining utensils.

Finger bowls.

- inger bow

Censers.

 Higashi-Sonoki-gun Kamihasamimura Tojikigyo Kumuai, Nagasaki-ken—

Ring rack.

Censers.

Flower vases.

Cake plates.

Card plates.

Bowl.

 Higashi-sonokigun Oriosemura Mikawauchi Toji-goshikaisha, Nagasaki-ken—

Flower vases.

Plates.

Tea sets.

Censers.

Coffee cups.

Bowls.

Pitchers.

Mantel ornaments.

 Higashi-Sonohi-gun Oriosemura Tojikigyo Kumiai, Nagasaki-ken—

Flower vases.

Censers.

Bowls.

Ornamental bowls.

Plates.

Soup plates. Coffee cups. Inkstands. Ash receivers. Toilet dish. Sugar dish. Milk pitcher. Butter dish.

Coffee cups. Egg cups.

8. Higuchi, Haruzane, Sagaken—

Cups. Coffee set.

Japanese tea set.

 Higashi-Sonoki-gun Oriosemura Yenaga Tojikigyo Kumiai, Nagasaki-ken—

miai, Nag Toilet utensils. Beer mugs. Flower vases. Plates. Goblets. Bowls. Pitcher.

Dishes. Mantel ornaments.

Soup plates and chocolate pots.

10. Hiraoka, Rihei, Gojo, Kioto-

Flower vases. Pitchers. Wine cups.

Censer.

Cigarette case.

Plates.

 Hiyekiba, Tokijigyo, Kumiai, Nagasaki—

Flower vases. Covered bowl.

Sugar pot.

Goblets.

Meat bowls. Cake bowls.

Basin.

Beer mugs.

Bowl.

Cups.

Flower pots. Coffee cups.

Plates

12. Hodota, Takichi, Sakai-cho, Yokohama—

Flower vases.

Mantel ornaments.

Censers.

Bowls. Pitchers.

Plates.

Jars.

Tea set.

Coffee cups.

Covered dishes.

13. Horikawa, Kozan, Kaya-cho, Shitaya-ku, Tokio—

Flower vases.

Plates.

Tooth-pick cases.

Ash receivers.

Incense boxes.

Censers.

Fire boxes.

14. Hyochiyken, Nagoya-

Tablets.

Flower vases.

Flower bowls.

Mantel ornaments.

Fancy jars.

 Ichihashi, Tobci, Ibaraki-ken— Flower vases. 16. Imura, Hikojiro, Honcho, Yokohama-

Flower vases.

Tablets.

Tea sets.

Coffee cups.

Tea pots.

17. Inouve, Gotaro, Kiyomizu, Kioto-

Flower vases.

Censer.

Jar.

Covered vessels.

Dishes.

Cake plate.

Plates.

Coffee cups.

Coffee set.

Basin.

Toilet basin.

18. Inouve, Ryosai, Hashiba-cho, .4sakusa, Tokio-

Flower vases. Mantel ornaments.

Ornamental plates.

Basins.

Bowls.

Flower pots.

Tea caddies.

19. Joshima, Iwataro, Saga-ken-Bowls.

Ice cream dishes.

Plates

20. Kanazawa Tojikigyo Dantai,

Kanazawa-

Coffee cups and saucers.

Ice cream sets.

Cake plates.

Umbrella stands.

Flower bowls.

Bread plates.

Plates.

Flower vases.

Jars.

Trays.

Bowls.

Censers.

Tooth brush stands.

Tea set.

Salt cellars.

Mantel ornaments.

Beer mugs.

Tobacco boxes.

Ornamental plates.

Basins.

Covered dishes.

Rells.

Cake plates.

Incense jars.

Lamp stands.

Flower pots.

Tablets.

Card plates.

Ash receivers.

Ornamental hanging piece.

21. Kato, Gosuke, Aichi-ken-

Bowls.

Pitchers.

Flower vases.

Tea set

22. Kato, Hanju, Aichi-ken-

Flower vases.

Tea caddy.

Cake dish.

23. Kato, Monyemon, Aichi-ken-

Flower vases.

Tea caddy.

Figure of dog, ornament.

24. Kato, Sukesaburo, Gifu-ken-

Flower vases.

Coffee cups.

Plates.

Card plates.

Bread plates.

Butter dishes.

Beer mugs.

Pen stands.

Inkstands.

Needle boxes.

Tea pots.

Tea set.

25. Kato, Sakutaro, Aichi-ken-

Tea set.

Trays.

Plates.

Flower vases.

Tablets.

26. Kato, Tomojiro, Owari-cho, Kyobashi-ku, Tokio—

Flower vases.

27. Kato, Zenjiro, Aichi-ken-

Flower vases.

Tablet.

Cake dishes.

28. Kawamoto, Hideo, Ginza, Kyobashi-ku, Tokio—

Tablets.

Mantel ornaments.

Flower vases.

Plates.

Flower pots.

Basin.

Tea cups.

Card bowls.

Tea sets.

Tea cups and saucers.

29. Kawamoto, Kengo, Honcho, Vokohama—

Tablets.

Tea service set.

Coffee sets.

Flower basins.

Tea caddy.

Fancy jar.

30. Kawatomo, Masukichi, Aichi-

ken-

Flower pots.

Bowls.

Umbrella stands.

Flower vases.

Lamp stands.

Censers.

Fancy jars.

Paving tiles.

31. Kihara Togogio Kumiai, Na-

gasaki—

Tea set. Beer mugs.

Tea pots.

rea pots.

Bowls.

Flower vases.

Cigar cases.

Pitchers.

Cake dishes.

32. Kishita, Tosaburo, Kitanagasa-dori, Kobe—

Tea sets.

 Kobayashi, Kichijiro, Shinsaibashi-suji, Osaka—

. . .

Flower basins.

Jars.

Plates.

Bowls.

Censer.

Cups.

D.

Tea pot.

Goldfish basin.

34. Kojima, Kumasaburo, Hashiba-cho, Asakusa-ku, Tokio—

Flower vases.

Plates.

Bowls.

35. Koran Gomeikaisha, Sagaken—

Flower basins.

Flower vases.

Dining utensils.

Tea set.

Chocolate pot.

Berry set.

Salad set.

Milk pitcher.

Plates.

Cake plates.

Bread plates.

Punch bowls.

Censers.

Mantel ornaments.

36. Matsumoto, Masajiro, Saga-

ken-

Plates.

Bowls.

Ice cream nappies.

Nappies.

Finger bowls.

37. Matsumoto, Sataro, Sarugakucho, Kanda-ku, Tokio—

Flower vases.

Tea set.

Plates.

Mantel ornaments.

Censer.

Bowls.

Tumblers.

.

Jars.

38. Matsuo, Kwanzo, Yamamotodori, Kobe--

Censer.

39. Midzuno, Ichinosuke, Na-

goya-

Tea sets.

Flower vases.

Cake vessels.

Dining utensils.

Candle holders.

Tablets

40. Mikawauchi, Tojiki, Goshi

Kwaisha, Nagasaki-ken-

Flower vases.

Tea sets.

Plates.

Pitcher.

Censers.

Coffee sets.

Bowls.

Mantel ornaments.

41. Miura, Chikusen, Kiyomizu, Kioto—

Flower vases.

Pitchers.

Bowls.

Censers.

Tea sets and "sake" cups.

42. Miyagawa, Kozan, Minami-

Ota-machi, Yokohama—

Flower vases.

Censers.

Fancy jars.

Ornamental plates.

Tea pots.

Pitchers.

Plates.

Coffee cups and saucers.

Basins.

Bowls.

43. Mukai, Wahei, Yehime-ken-

Flower vases.

Basins.

Coffee set.

Tea set.

Censer.

Mantel ornaments.

Plates.

Cups.

14. Murakami, Masajiro, Shimovamate-dori, Kobe-

Flower vases.

Plates.

Censers.

Mantel ornaments.

Tea sets.

45. Nagata, Sojuro, Nagoya-

Tea sets.

Dining utensils.

Flower vases.

46. Nagakawa, Noboru, Asakusa-Park. Tokio-

Flower vases.

Coffee cups and plates.

47. Nakamura, Kamcichi, Asakusa Park, Tokio-

Flower vases.

48. Naruse, Seishi, Gifu-ken-

Flower vases.

Mantel ornaments.

Tablet.

Plates.

Beer mugs.

Tea cups.

Censer.

40. Nishiura, Yenji, Gifu-ken-

Flower vases.

Fancy jars.

Coffee cups.

Tea cups.

Cake bowls.

Bowls.

Censers.

Covered dishes.

Tea pots.

Ornamental plates.

Flower bowls.

50. Nomigun Kutani Toki Exhibitors' Association. Ishikawa-

ken-

Flower basins.

Flower dishes.

Mantel ornaments.

Plates.

Coffee cups and saucers.

Tea sets.

Wine bottles.

Bowls.

Jars.

Round plates.

Basins.

Censers.

Ornamental plates.

Flower basins and censers in set.

Bells.

Toilet utensils.

Bottles.

Beer mugs.

Covered dishes.

Tooth brush stands.

Cake bowls.

Cups and saucers.

Tea pots.

Tea set.

Cups.

Egg cups.

51. Okamoto, Tominosuke, Aburanokoji, Kioto-

Flower vases.

Pitchers.

Fire box.

Jars.

Censers.

Bowls.

Mantel ornaments.

52. Saga-ken Nishimatsura-gun Tojiki Dogyo Kumiai, Saga-

ken-

Bowls.

Plates.

Covered dish.

Flower basins.

Dining utensils.

Dolls.

Jars.

Coffee cups.

Umbrella stands.

Cake bowls.

Lanterns.

Flower vases.

Soup bowls.

Punch bowls.

Finger bowls.

Flower pots.

53. Sakamoto, Gengo, Yehime-

ken-

Flower pots.

Flower vases.

Jars.

Basins.

Coffee sets.

Tea sets.

Beer mugs.

Covered dishes.

Plates.

Bowls.

Mantel ornaments.

54. Shibata, Zenyemon, Aichiken-

Flower vases.

Card holders.

Ash receivers.

Cigarette plates.

Plates.

Censers.

Flower pots.

Bowls.

55. Shiba, Torao, Hiogo-ken— Flower vases.

Mantel ornament.

56. Shimada, Taro, Owari-cho, Kyobashi-ku, Tokio—

Flower vases.

57. Shimidzu, Rokunosuke, Nagoya—

Flower vases.

Tea caddies.

Censers.

Tea sets.

Plates.

Tablets.

58. Shimidzu, Sekison, Gifuken-

Flower vases.

Covered dishes.

Tablet

Censers.

59. Shimohasamiura Hikiba Tojikigio Kumiai, Nagasaki-

ken-

Ash pan. Censers.

Pitcher.

i ittiiei.

Flower vases.

Cup.

Cake plate.

Name card receiver. Bowl.

Ring holder.

60. Suzuki, Masunosuke, Bentendori. Yokohama-

Tablets.

61. Tajimi Trading Co., Gifuken-

Coffee cups.

Plates.

Milk pitchers.

Pen plates.

Pepper pots.

Butter dish.

Tooth brush stands.

Covered dish.

Tea caddy.

Chocolate pots.

Chocolate cups.

Tea pots.

Switch cases.

Bowls.

Mustard pots.

Egg cups.

Flower vases.

Tobacco boxes.

Ash receiver.

Dish.

Pan.

Censer.

Smoking utensil.

Umbrella stands.

Flower basins.

Tea pots.

Fire boxes.

Covered dish.

62. Takahashi, Dohachi, Kiyomi-

zu. Kioto-

Flower vases.

Censer.

Bowls.

Flower pot.

Mantel ornament.

Takahashi, Tsurukichi, Ye-63. hime-ken-

Flower vases.

Tea sets.

Censer.

Tobacco box.

Cup.

Pitcher.

Dining utensils.

Water reservoir.

Toilet basin.

64. Takemoto, Koichi, Takata,

Tokio-

Flower vases.

65. Takito & Co., Nagoya-

Farthen wares.

66. Takito, Manjiro, Nagoya-

Earthen wares.

Taniguchi, Chojiro, Kiyo-

mizu, Kioto-

Flower vases.

Jars.

68. Taniguchi, Kichijiro, Sarugaku-cho, Kanda-ku, Tokio-

Flower vases.

Mantel ornaments.

Coffee set.

Censers.

Plates.

Bowls.

Toothpick holders.

Coffee cups.

Jars.

"Sake" cups.

69. Tashiro, Ichiroji, Bentendori. Yokohama-

Dining utensils.

Tea sets.

Punch bowls.

Flower basins.

Umbrella stands.

Ornamental plate.

Chocolate sets.

Bowls.

Plates.

Japanese tea sets.

Ice cream nappies.

70. Tashiro, Seijiyemon, Fukushima-ken-

Flower vases.

Cigarette vases.

Tarcishi, Jiyemon, Motomachi, Kobe-

Flower basins.

Jars.

Bowls.

Plates.

Terabayashi, Katei, Gojo, Kioto-

Tea sets.

Beer mugs.

Kettle.

Flower basins.

Plate and tea caddy.

73. Terazawa, Tomejiro, Aichi-

ken-

Coffee cups.

Plates.

Flower vases.

Ice cream plates.

Tea sets.

Bowls.

74. Tominaga, Genroku. Sagaken_

Flower vases.

Cake vessels.

Plates.

Bowls.

Soup dishes.

Mantel ornaments.

Toilet stands.

Tominaga, Yasuji, Utsubo-Kami-dori, Osaka-

Flower vases.

Mantel ornaments.

Tea sets.

Cups.

Plates.

Bowls.

Tomoda, Yasukiyo, Hiogo-

ken-

Flower vases.

Ornamental plates.

Flower bowl.

Coffee cups.

Tsuchikawa, Sozaemon, Gifu-77.

ken-

Flower vases.

Covered dishes.

Sugar bowls.

Plates.

Bowls

78. Tsuji & Co., Saga-ken-

Flower vases.

Bowls.

Covered dishes.

Mantel ornaments.

Censers.

Tea sets.

Tobacco boxes.

Ice cream sets.

Plates.

79. Tsuji Osaka Branch Office, Utsubo-Kami-dori, Osaka— Flower basins.

Flower pots.

80. Uno, Nimatsu, Gojo, Kioto-

Beer mugs.

Flower vases.

Candle holder.

Bowls.

Tea cups.

Flower basins.

Ash receivers.

Basins.

Covered dishes.

Coffee cups.

*Tea pots.

Plates.

Tobacco cases.

Toilet set.

Lamp stand.

Fire boxes.

Milk pitchers.

Umbrella stands.

Jars.

Flower plates.

Fruit plate.

Mantel ornament.

81. Watanabe, Kihachiro, Tsukiji, Kyobashi-ku, Tokio—

Flower vases.

Tablets.

Coffee cups.

Plates. Bowl.

Mantel ornaments.

Tea sets.

Coffee sets.

Censer.

82. Yamamoto, Jusaku, Sagaken-

Flower basins.

Jars.

Bowls.

Basins with stand.

Flower pots.

Umbrella stands.

83. Yamanaka Co., Kitahama, Osaka—

Dining utensils.

84. Yenuma-gun Kutani Toki
Exhibitors' Association, Ishikawa-ken—

Flower basins.

Bowls.

Candle holders.

Plates.

Jars.

Covered dishes.

Censers.

Tablets.

Basins.

85. Yukitake, Toyokichi, Sagaken—

Flower basins.

GROUP 47.

Glass and Crystal. (Palace of Manufactures.)

 Shimada, Magoichi, Tenjinbashi-suji, Osaka— Window glass.

GROUP 48.

Apparatus for Heating. (Palace of Varied Industries.)

 Onishi, Yo, Gifu-ken— Stove screens,

2. Teshigawara Goshi Kwaisha, Gifu-ken—

Stove screens.

GROUP 49.

Lighting Apparatus.

(Palace of Manufactures.)

 Aida, Takijiro, Awomonocho, Nihonbashi-ku, Tokvo—

Lanterns.

- 2. Goto, Yonetaro, Gifu-ken—"Gifu" fancy lanterns.
- 3. Idzumi, Zenshichi, Gifu-ken-"Gifu" fancy lanterns.
- 4. Komatsu, Isuke, Genzo-machi, Osaka—

Lanterns.

- Matauki, Bunkio, Kanomachi, Kobe—
 Lamp shade and lamp.
- Miyata, Totaro, Benten-dori, Yokohama—
 Lamp shade and lamp.
- 7. Nakai & Co., Sannomiya, Kobe— Lamp shades.
- 8. Nakamura, Genzo, Nagoya— Lamp shades.
- 9. Ozeiki, Jishichi, Gifu-ken-"Gifu" fancy lanterns.
- 10. Suzuki, Toramatsu, Nagoya—

Lanterns.

- 11. Takei, Sukeyemon, Representative of Takei Paper Co., Gifu-ken—
 Fancy lanterns.
- Tanaka, Seikichi, Tokyo— Fancy lanterns.

 Teshigawara, Goshi, Kwaisha, Gifu-ken—
 "Gifu" fancy lanterns.
 Lamp shades.

 Yamanaka & Co., Kitahama, Osaka— Lamps.

GROUP 51.

Equipment for the Manufacture of Textile Fabrics.

(Palace of Manufactures.)

 Meiko Sha, Kawara-cho; Asakusa-ku, Tokyo— Heddles.

GROUP 52.

Equipment used in Bleaching, Dyeing, Printing and Finishing Textiles.

(Palace of Manufactures.)

- Higuchi, Bunsuke, Kamanoza-dori, Kyoto—
 Gold threads.
 - 2. Kanazawa Dyed Stuff Exhibitors' Association, Kana-

Screen.
Table cloth.
"Gaku."
Hanging.
Pillow cases.
Stove screen.
Bed spread.
Folding screen.
Fans.

Pillow.

Tapestry, painted.

Hanging, painted.

"Gaku" of painted fabric.
"Kakemono" of painted fabric.
Screen of painted fabric.
Folding screen of painted fabric.
Pillow case, painted.

GROUP 54.

Threads and Fabrics of Cotton. (Palace of Manufactures.)

 Anahara, Masakichi, Tochigiken—

Cotton crape.

- 2. Aoki, Seizo, Tochigi-ken—Cotton crape.
- 3. Asada, Tokuhei, Osaka-fu—Cotton yarn.
- 4. Chikusa, Yasubei, Osaka—Cotton crape, dyed.
- Cotton Crape Manufacturers' Association, Yamaguchiken—

"Iwakuni" cotton crape.

 Daito, Kamekichi, the Representative of Otani Fabric Factory, Shiga-ken—

Figured gauze crape.

Gauze crape.

Striped gauze crape.

White cotton crape. Striped cotton crape.

Cotton crape.

- Fujiki, Kaichiro, Kodenmacho, Nihonbashi-ku, Tokio— Cotton crape.
- 8. Fukui, Sahci, Tokushimaken—

Imitation flannel.

9. Haniu, Chokichi, Tochigiken—

Cotton crape.

- 10. Hibino & Co., Nagoya Cotton fabric, printed.
- Horikawa, Shinzaburo, Shirakawa-suji, Sanjo, Kyoto— Dyed imitation flannel. Dyed calico. Dyed muslin.
- 12. Ichida, Yeijiro, Representative of Murai Cotton Threads Factory, Osaka-fu—
 Cotton threads.
- Hirooka, Isuke, Hasegawacho, Nihonbashi-ku, Tokio—

Cotton crape.

- 14. Idzumo Cotton Crape Manufacturers' Association, Tottori-ken—
 - "Idzumo" cotton crape.

"Idzumo" cotton crape, gased.

- 15. Inaoka & Co., Hyogo-ken— Towels.
- Inouye, Tsunejiro, Azuchimachi, Osaka—
 Cotton threads.
 Net cord.
 - 17. Inouye, Yoshibei, Kyoto—
 "Yuzen" painted cotton fabric.
 - Ishii, Katsujiro, Temmabashisuji, Osaka— Towels.
- Ishikawa, Seiyemon, Bentendori, Yokohama—
 Cotton crape.
- 20. Ishikawa, Sadakichi, Tochigiken—

Cotton crape.

 Ito, Chiubci, Hon-machi, Osaka— Cotton crape. 22. Iuchi, Kamejiro, Tokushimaken—

Cotton imitation flannel.

- Iwaita, Genzo, Tochigi-ken— Cotton crape.
- 24. Iwashita, Zenshichiro, Tochigi-ken— Cotton crape.
- Iyo Imitation Flannel Manufacturers' Association, Yehime-ken—

"Iyo" imitation flannel.

- 26. Kawashima, Keijiro, Minami-Kinhoji-machi, Osaka— Towels.
- 27. Kawashima, Kiubei, Tochigiken—

Cotton crape.

28. Kishu Imitation Flannel Manufacturers' Association, Wakayama-ken—

Imitation flannel.

- Mikawa, Teijiro, Tokushimaken—
 "Kokura" cotton fabric.
- 30. Mima, Giichiro, Tokushimaken-

Imitation flannel.

31. Motojima, Zensaku, Tochigiken—

Cotton crape.

- 32. Nihon, Katazome, Kwaisha,
 Shidzuoka-ken—
 Cotton crape, printed.
 Cotton fabric, printed.
- 33. Nishimura, Kinjiro, Yedoboriminami-dori, Osaka— Cotton crape, striped.

.Mixed cotton and silk fabric, figured. "Moji ori" fabric. Towels.

- 34. Imitation Flannel Manufacturing Co., Wakayama-ken— Imitation flannel.
- 35. Nomura, Rihei, Honmachi, Osaka—

Cotton crape.

36. Osaka Kitakawachi-gun Fabric Manufacturers' Association, Osaka-fu—

Towels.

Cotton crape.

- 37. Saito, Jiuzo, Tochigi-ken—Cotton crape.
- 38. Sakurai, Shinroku, Tochigiken-

Cotton crape, printed.

- 39. Sano Fabric Manufacturers'
 Association, Tochigi-ken—
 Cotton crape.
- Sekiguchi, Tetsujiro, Saruyecho, Fukagawa-ku, Tokyo— Cotton fabric, printed.
- 41. Shinkawa Fabric Manufacture Co., Toyama-ken— Cotton crape, gased.

42. Sudo, Nihei, Tochigi-ken—Cotton crape.

43. Takaishi, Sosuke, Tokushimaken—

Cotton fabric.

Cotton fabric.

44. Takashima Cotton Crape and Imitation Flannel Manufacturers' Association, Shigaken—

"Takashima" cotton crape.

 Tani, Otoshiro, Beuten-dori, Yokohama—
 Cotton fabric, gased.
 Cotton crape, gased.

Cotton fabric.

Cotton crape, painted.

 Tokushima Fabric Manufacture Co., Tokushima-ken— Imitation flannel.

47. Tokushima Seikisha, Tokushima-ken—

"Kokura" cotton fabric.

48. Tonobori, Yoshibei, Kyogaimachi-dori, Kyoto— Cotton fabric curtams.

49. Tsuji, Toyohei, Tochigi-ken—Cotton fabric, figured.

50. Umibe, Tashiro, Tokushimaken—

Cotton fabric.

51. Uyeno, Shinyemon, Shigakeu—

"Takashima" cotton crape.

 Yagi, Fukumatsu, Tosabori-Uramachi, Osaka— Towels.

 Yamazaki, Washichi, Yamanoshiku-machi, Asakusa-ku, Tokyo—

Cotton fabric, painted.

54. Yasuda, Genzo, Tochigi-ken—Cotton crape.

GROUP 55.

Threads and Fabrics of Vegetable Fibers other than Cotton. (Palace of Manufactures.)

1. Asahi Co., Nijo Kawaramachi, Kyoto—

Table cloth.

Doilies.

Napkins. Handkerchiefs. Pillow-case. Collars.

Centerpiece. Sideboard cover.

2. Formosan Government, Taihoku, Formosa—

Chinese grass fabric. Chinese grass fiber.

3. Hisajima, Bunhachi, Nagasaki-keu—

Handkerchiefs.

4. Hokkaido Flax Company, Hokkaido—

Sail cloths, various kinds. Canvas.

Linen.

Bleached flax fabric. Unbleached flax fabric.

5. Iwata, Toyo, Yokohama— Handkerchiefs.

6. Nara Hemp Fabric Exhibitors'
Association, Nara-ken—
Handkerchiefs.

7. Omi Hemp Manufacturers'
Association, Shiga-ken—
Staff for foreign dress.

8. Shibata, Matakichi, Yokohama— Handkerchiefs.

Chamle

Shawls.

9. Shidzuoka-ken "Kuzu" Fabric Exhibitors' Association. Shidzuoka-ken—

Fabric of fiber of "Kuzu,"

 Takemura, Ito, Yokohama— Handkerchiefs.
 Collars and cuffs.

GROUP 56.

Yarn and Fabrics of Animal Fibers. (Palace of Manufactures.)

- 1. Horikawa, Shinzaburo, Shirakawa-suji, Sanjo, Kioto-Painted muslin. Painted muslin table cloth. Curtain.
- 2. Kyoto Dyers' Association, Kameya-cho, Kyoto-Muslin, painted.
- 3. Ogihara, Knnizo, Tokyo-fu-Muslin, painted.
- 1. Osaka Muslin "Yuzen" Painters' Association, Nakanoshima, Osaka-Muslin, painted.
- 5. Tanioka, Kintaro, Tokyo-fu-Muslin, painted.

GROUP 57.

Silk and Fabrics of Silk. (Palace of Manufactures.)

- 1. Aikawa, Denichiro, Yamanachi-ken-"Kaiki" silk.
- 2. Akamatsu. Uhei. Yehimeken-

Raw silk.

- 3. Amano, Isuke, Gifu-ken-Figured silk crape.
- 4. Asahi Silk Manufacturing Co., Miyagi-ken-Raw silk.
- 5. Asano, Shinzaburo, Gifu-ken-Figured silk crape. Silk crape.

6. Asano, Toyozo, representative Tokushinsha, Naganoken-

Raw silk.

7. Atako Silk Manufacturing Co., Shidzuoka-ken-

Raw silk.

8. Choshin Silk Manufacturing Co., Nagano-ken-Raw silk.

- o. Date, Toraichi, Tenjin-Kitamachi, Kyoto-Brocades.
- 10. Fnji, Boscki, Kabushiki Kwaisha, Tokyo-Silk thread.
- 11. Fujikawa Bros., Takikawa Silk Factory, Hokkaido-Raw silk.
- Fujiki, Kaichiro, Kodemmacho, Nihonbashi-ku. Tokio-Handkerchiefs of silk.
- 13. Fujisaki, Saburosuke, Sendai— "Habutai."

14. Fnkni Silk Fabric Association, Fnkni-ken-Plain "Habutai." Twilled "Habutai."

Figured "Habutai."

Thin silk fabric.

Handkerchiefs.

- 15. Fukushima-ken, Kogyo Shiken-jo, Fnkushima-ken-"Habutai."
- Silk Fabric 16. Fukushima-ken Fukushima-Association. ken-

"Habutai."

- 17. Fukuwara, Unosuke, Kuromon-dori Ichijo, Kyoto-"Atsuita" fabric.
- 18. Gifu Silk Fabric Co., Gifuken-Broad figured silk crape.

Figured silk crape.

- 19. Gisaisha, Yamaguchi-ken-Raw silk
- 20. Gosen Silk Fabric Co., Niigata-ken-"Yatsuhashi" fabric.
- 21. Government Sericultural Institute. Tokio-Raw silk.
- 22. Gunje Silk Manufacturing Co., Kyoto-fu-Raw silk.
- 23. · Habutai Goshi Kwaisha, Yamagata-ken-"Habutai."
- 24. Hakata Fabric Manufacturing Association, Fukuokaken-Silk fabric.
- 25. Hakkwaku Kwaisha, Hyogoken-Raw silk.
- 26. Hakusei Kwan, Fukushimaken-Raw silk.
- 27. Hainabe, Gihachiro, Ogawadori, Ichijo, Kyoto-Silk curtain.
- 28. Hama, Hachitaro, Naganoken-Raw silk.
- 29. Hamami, Rishichi, Kyoto-fu-Silk crape.

- 30. Hasegawa, Gosaburo, prietor of Hasegawa Silk Factory, Yamagata-ken-
 - Raw silk.
- 31. Hattori, Magobei, Nagoya-Dved silk.
- 32. Hattori, Tominosuke, representative of Hakusei Sha. Miye-ken-

Raw silk.

- 33. Hattori, Yoyemon, Nagoya-Dyed silk.
- Hayashi, Seihei, representative of Hayashi Gumi, Naganoken-

Raw silk.

35. Hayashi, Seikichi. Naganoken-

Raw silk.

36. Higami, Kyodosha, Hyogoken-

Raw silk.

- 37. Higo Silk Manufacturing Co., Kumamoto-ken-Raw silk.
- 38. Hikisa Silk Manufacturing Co., Shidzuoka-ken-Raw silk.
- 39. Hirata, Ryozen, Kabushiki, Kwaisha, Shimane-ken-Raw silk.
- 40. Hirooka, Ihei, Muro-machi, Kyoto-
 - "Yuzen" for foreign dress.

"Yuzen." Dved silk.

Dress.

41.. Hisada, Izaemon, Nagoya-Silk table cloth, shawl, etc.

42. Hisajima, Buuhachi, Nagasaki-ken—

Handkerchiefs.

- Hisajima, Seikichi, Yamanashi-ken—
 "Kaiki" silk.
- 44. Hisui Sha, Shimane-ken— Raw silk.
- 45. Hochu Silk Manufacturing
 Co., Oita-ken—
 Raw silk.
- 46. Hodono, Sobei, Yehime-ken-Raw silk.
- 47. Hon Rokkosha, Nagano-ken-
- 48. Ichikawa, Kumajiro, Yamanashi-ken— "Kaiki."
- 49. Iida, Shinshichi, Karasumaru, Takatsuji, Kyoto— Silk fabric for ladies' dress. Silk fabrics for ladies' sash. "Habutai" white.
- Inada, Uhachi, Omiya Kamidachi-uri, Kyoto—
 Black satin.
- Inagaki, Tsunekichi, representative of the Inagaki Gomei Kwaisha, Muro-machi Anegakoji, Kyoto—

"Kuretakori" fabric.

Silk crape.

Silk crape striped lengthwise.

"Habutai."

"Habutai," twilled.

Silk muslin.

Crape with satin stripes.

Stitched silk crape.

- 52. Inouye, Ichiro, representative of Kitatsuru "Kaiki" Fabric Manufacturing Association, Yamanashi-ken— "Kaiki"
- Inouye, Rikizo, Kanudachiuri, Shimmachi, Kyoto—
 Specimens of various kinds of fabrics.
- 54. Inuishi, Toshichi, Kyoto-fu-Raw silk.
- Iohara Silk Manufacturing
 Co., Shidzuoka-ken—
 Raw silk.
- 56. Ishikawa-ken Export Silk Manufacturers' Association, Kanazawa—

"Habutai."

"Habutai," figured.

Thin silk fabric.

"Habutai," striped.

Stuff for handkerchiefs.

- "Kaiki" woven with gased thread.
 "Habutai" woven with gased thread.
- 57. Ishioka Silk Factory, Ibarakiken—

Raw silk.

58. Ito, Chiubei, Hon-machi, Osaka—

Twilled silk sleeve lining for foreign dress.

"Kobai" kaiki.

59. Ito, Kozayemon, Miye-ken— Raw silk.

- 60. Ito, Sentaro, Shidzuoka-ken— Raw silk.
- 61. Ito Silk Manufacturing Co.,
 Wakayama-ken—
 Raw silk.

62. Ito Silk Weaving Co., Nagova-Figured "Habutai."

63. Ito, Yojiro, Gifu-ken-Raw silk.

64. Iwakuni Silk Manufacturing Co., Yamaguchi-ken-Raw silk.

65. Iwamoto, Ryosuke, Tochigi-Figured silk.

66. Iwashita, Zenshichiro, Tochigi-ken-

Silk fabric.

67. Iyo Shirataki Silk Manufacturing Co., Yehime-ken-Raw silk.

68. Josui Sha, Tokyo-fu-Raw silk.

69. Junsui Kwan, Nagano-ken-Raw silk.

70. Kagami, Governon, Yamanashi-ken-

Fabric for umbrella.

71. Kageyn, Jinshiro, Aichi-ken-Raw silk.

72. Kagoshima-ken, Jusansha, Kagoshima-ken-

Raw silk.

73. Kabata, Mansuke, Kyoto-tu-"Habutai" crape. Silk fabric.

74. Kaimei Sha, Nagano-ken-Raw silk.

75. Kaisho Kwaisha, Gifu-ken-Raw silk.

76. Kaishin, Kwaisha, Saitamaken-Raw silk.

77. Kamimura, Jokin, Niigataken-

"Horai" fabric.

78. Kaiyama, Kiichiro, Onoye-cho, Yokohama—

"Habutai," figured.

"Kobai kaiki."

"Kobai kaiki," figured.

"Kobai kaiki," with weft of gased thread, figured.

"Kobai kaiki" mixed with gased thread.

79. Kamo Silk Manufacturing Co., Gifu-ken-Raw silk.

80. Kanamori, Kichijiro, Gifuken-Raw silk.

81. Kaneda, Chinbei, Horikawa Kammidachi-uri, Kyoto-Damask. Brocade.

82. Kanrakusha, Gunma-ken-Raw silk.

83. Kasawara, Fusakichi, Representative of Rinjo Krean, Nagano-ken-

Raw silk.

84. Katagiri, Ryoya, Naganoken-Raw silk.

85. Katakura, Kanetaro, Representative οf Katagura Gumi, Nagano-ken-

Raw silk.

86. Katakura, Kiubei, Naganoken-Raw silk.

87. Kataniwa, Torakichi, Shinogawa-machi, Ushigomiku, Tokio—

Handkerchiefs.

88. Kato, Genji, Benten-dori, Yokohama—

Handkerchiefs.

- 89. Katsuno & Co., Gifu-ken-Raw silk.
- Kawamoto, Shobei, Higashinotoin, Rokkaku, Kyoto—
 Silk fabric (kanoko).
 White crape.
 Table cloth.
- Kawamura, Yakci, Nagoya— Handkerciefs.
- 92. Kawashima, Chojiuro, Tochigi-ken—

Damask.

"Kohaku" fabric.

93. Kawashima, Jinbei, Sanjo, Higashinotoin, Kyoto—

Pieces of brocade set in frames. "Yamatoori" fabric curtain. Curtain.

"Honkokuori" curtain.

"Genkiori" curtain.

Brocade curtain.

"Honkokuori" for drapery. Damask for drapery.

"Yamatoori" for cushion.

"Honkokuori" doilies.

Patent "Midarekanoko."

Patent "Asahiori."

94. Kayanuma, Kunihei, Yamanshi-ken—

Fabric for lining.

95. Kazama Silk Factory, Yamanashi-ken—

Raw silk.

- Kcnshi Boseki Kabushiki
 Kwaisha, Higashi Takeyamachi, Kyoto—
 Spun silk thread.
- 97. Kimpo-Sha, Yamanashi-ken— Raw silk.
- 98. Kimura, Asashichi, Tochigiken—

"Kohaku," figured.

- Kimura, Tosuke, Osaka Branch Office Minami-kintaro-machi, Osaka—
 - "Shuchin" fabric interwoven with pure gold thread.
- 100. Kiriu Manufacturers' Association, Gunma-ken—

"Habutai."

"Habutai," dyed.

"Habutai," figured.

"Habutai," figured and dyed.

"Habutai," striped.

Silk crape.

Silk crape, dyed.

"Hama kohaku."

"Monsha habutai."

"Ro" (silk gauge), figured.

Satin, figured.

"Kohaku," figured.

"Kobai kaiki."

Lining stuff for foreign dress.

"Orihime" satin.

Cotton satin.

- Kisennuma Silk Manufacturing Co., Miyagi-ken—
 Raw silk.
- 102. Kitahama, Sanjiuro, Masago-cho, Yokohama— "Kobai" fabric.

- 103. Kitaichi Company, Minami-Naka-dori, Yokohama— "Habutai."
- 103a. Kiyoshi, Sugawa, Yokohama—
 "Habutai," silk, Kawamata.
 "Habutai," silk, 5 m. to 15 m.
 Twill "habutai."
 Jacquard "habutai."
 Fancy "kaiki."
 Corded "kaiki."

Corded "kaiki," cotton weft. Taffeta.

Figured satin.

Satin striped taffeta. Crape.

- 104. Kobayashi, Kiichi, Nagasaki-ken— White "habutai."
- 105. Kobayashi, Shinshichi, Kyoto-fu—"Habutai" crape.Silk fabric.
- 106. Kobayashi, Shinzaburo, Representative of Koyo Kwan,
 Yamanashi-ken—

White "habutai," raw silk.

107. Konan - Sha, Yamanashiken---

White "habutai."

- 108. Kono & Co., Yehime-ken— White "habutai."
- 109. Kono Gomei-Kwaisha, Yehime-ken—
 "Habutai."
- 110. Kosan-Sha, Hyogo-ken—
 "Habutai," raw silk.
- 111. Kosei-Sha, Yamanashi-ken— "Habutai."

- 112. Kotsuna, Korejiro, Masagocho, Yokohama— "Kawamata habutai."
- 113. Kubota, Kwan, Naganoken—

"Kawamata habutai," raw silk.

- 114. Kubota, Ryotaro, Naganoken—
 - "Kawamata habutai," saw silk.
- 115. Kumagaye Silk Manufacturing Co., Saitama-ken— "Kawamata habutai."
- 116. Kumamoto Silk Manufacturing Co., Kumamoto-ken— "Kawamata habutai."
- 117. Kunijima, Chiusuke, Tochigi-ken—

Figured fabric.

- 118. Kurokawa, Rikimatsu, Dojima-Hamadori, Osaka— "Habutai," painted.
- 119. Kusaka, Yasuzayemon, Hyogo-ken—Figured fabric, raw silk.

rigured labric, raw siik.

120. Kutsumidzu, Bunjiro, Shigaken— Crape.

- 121. Kutsumidzu, Scijiro, Shigaken — Crape.
- 122. Kwansai Silk Manufacturing
 Co., Miye-ken—
 Raw silk.
- 123. Kyodo, Kiito, Nitsukuri Sho, Fukushima-ken— Raw silk.

124. Kyoto Dyers' Association, Takeya-machi, Kamanoza Kyoto-

Painted velvet. Painted crape. Painted "habutai." Painted muslin. Dyed "habutai." Black "habutai." Dyed crape.

125. Kyoto Fabric Manufacturing Co., Yoshida-machi, Kyoto-

"Miyako" satin. "Toyo" damask and samples. Thin twilled silk fabric. Stuff for foreign ladies' dress.

126. Kyoto Silk Manufacturing Co., Kyoto-Raw silk.

127. Machida, Tokunosuke, Kurofune-cho, Asakusa-ku, Tokvo-Silk thread.

Maki, Shinshichi, Naganoken-

Raw silk.

128. Maki, Mosuke, Naganoken-

Silk thread.

130. Makita, Kichiichiro, Yamanashi-ken-

Fabric for lining.

131. Maruyama, Koichiro, Representative of Yonezawa Silk Manufacturing Co., Yamagata-ken-

Raw silk.

132. Matsumoto, Kyozo, Shimane-ken-

Raw silk.

133. Matsumura, Jinyemon, Ni-Muromachi, shikinokoji. Kvoto-

Silk muslin.

134. Matsu-ura. Yoshimatsu, Benten-dori, Yokohama-Silk crape.

French crape.

"Habutai."

"Kawamata habutai."

135. Matsuoka, Keiji, Miyagiken-

Raw silk.

136. Mikawa Silk Manufacturing Co., Aichi-ken-Raw silk.

Mimasaka Silk Manufacturing Co., Okayama-ken-Raw silk.

138. Minakanishi, Yeizaburo, Rokkaku Higashinotoin, Kvoto-

Stuff for curtain. Handkerchiefs.

Pillow cases.

Mitsui, Nihei, Representa-139. tive of Hakkwaku-Sha, Nagano-ken-

Raw silk.

Miura Silk Factory, Yama-140. gata-ken-Raw silk.

141. Miyagi-Ken "Habutai" Manufacturing Association, Sendai-

"Habutai."

- Miyakonojo Silk Manufacturing Co., Miyasaki-ken— Raw silk.
- 143. Miyasaki Silk Manufacturing Co., Miyasaki-ken— Raw silk.
- 144. Miyauchi Silk Manufacturing Co., Yamagata-ken— Raw silk.
- 145. Mochitsuki, Heitaro, Shidzuoka-ken— Raw silk
- 146. Morii, Kiichiro, Bukkoji, Nishinotoin, Kioto— Ribbon.
- 147. Murasakino Fabric Manufacturing Co., Atago, Omiya, Kyoto—

Satin for dress.

- 148. Nagano-Ken Export Silk Fabric Manufacturers' Association, Nagano-ken— Twilled "habutai."
- 149. Nagaoka, Manpei, Representative of Shinyo-Kwan, Nagano-ken— Raw silk.
- 150. Nagase Masajiro, Gifuken—

"Habutai," figured.

151. Nagoya Kokusan Shibori Shoko Dogyo Kumiai, Nagoya—

Dyed fabric. Table cloth.

152. Nakamura, Hanbei, Higashinotoin, Rokkaku, Kyoto—

Brocade.

"Kara ori" fabric.

- 153. Nakazawa, Rihachi, Gojo, Tominokoji, Kyoto— "Kohaku," figured.
- 154. Namikawa, Rijiro, Shimaneken— Raw silk.
- 155. Nanpo-Kwan, Oita-ken— Raw silk.
- 156. Nemoto, Sensuke, Minamijimbo-cho, Kanda-ku, Tokyo—

Silk thread for embroidery.

- 157. Nihon Katazome Kwaisha, Shidzuoka-ken— "Hosho" fabric.
- 158. Nishida, Kahei, Uye-nomachi, Shitaya-ku, Tokyo— Silk thread. Thread of weaving velvet.
- 159. Nishikawa, Kobci, Karasumaru, Kyoto— White plain "habutai." White figured "habutai." White twilled "habutai." White silk crape. White figured crape.
- 160. Nishimura, Jihei, Sanjo, Muromachi, Kyoto—
 Silk crape.
 "Habutai," figured.
 Fabric for foreign dress.
 "Miyako habutai."
 Silk muslin.
- Nishimura, Kinjiro, Yedoboriminami-dori, Osaka— "Kobai" fabric.
- 162. Niwa, Taichiro, Miye-ken— Raw silk,

163. Nomura, Itaro, Representative of Sanren-Sha, Aichiken—

Raw silk.

164. Obama Silk Manufacturing Co., Fukui-ken— Raw silk.

165. Ochi Silk Manufacturing
Co., Kochi-ken—

Raw silk.

166. Ofuji Co., Kyoto-fu— Silk crape. Silk fabric.

167. Ogawa Sakuhei, Representative of "Hamachirimen" Manufacturers' Association, Shiga-ken—

Crape.

168. Oguchi, Murakichi, Naganoken—

Raw silk.

 Oguchi, Yoshishige, Representative of Oguchi Gumi, Nagano-ken—
 Raw silk.

170. Oishi, Takichi, Seudai— Cocoon bags of strong paper.

171. Okatani Silk Manufacturing Co., Nagano-ken— Raw silk.

172. Okimo Takijiro, Muromachi-Kashira, Kyoto—
Silk and cotton fabrics.

173. Omi Hara Silk Factory, Shiga-ken— Raw silk.

174. Omi Silk Manufacturing
Co., Shiga-ken—
Raw silk

175. Ono, Kyosuke, Naganoken— Raw silk.

176. Orimono Kenkiu Jo, Kyotofu—

Silk fabric and crape.

177. Osachi Kisaku, Kitanagasadori, Kobe— Plain "habutai."

Twilled "habutai."

178. Osu Silk Manufacturing Co., Yehime-ken—

Raw silk.

179. Ozawa, Fukutaro, Naganoken— Raw silk.

180. Rokkosha, Nagano-ken— Raw silk.

 Rokumonsen Goshi Kwaisha, Nagano-ken— Raw silk.

182. Ryokaku, Shonai, Representative of Tomioka-Kwan, Nagano-keų— Raw silk.

 Ryoseisha, Fukushima-ken— Raw silk.

184. Ryou Silk Manufacturing
Co., Yamagata-ken—
Raw silk.

185. Sagami Kogyo Co., Kanagawa-ken—

Silk and mixed fabrics.

186. Saitama Silk Manufacturing Co., Saitama-ken— Raw silk.

187. Saito, Soichi, Yamagataken— "Kohaku."

Silk fabric.

188. Sakai Silk Manufacturing
Co., Tottori-ken—
Raw silk.

189. Sakura Silk Manufacturing Co., Okayama-keu—

Raw silk.

190. Sanin Silk Manufacturing
Co., Tottori-keu—
Raw silk.

191. Sano Silk Factory, Miyagiken—

Raw silk.

192. Sauriusha, Aichi-keu-Raw silk.

193. Sansei Company, Fukushima-kcu—

Raw silk.

194. Sanyen Floss Silk Mannfacturers' Association, Aichi-ken—

Floss silk.

195. Sarashina - Sha, Naganoken—

Raw silk.

196. Sawada, Ryotaro, Aichiken—

"Arimatsu Shibori."

 Sawamura, Tashichi, Shinmachi, Nishikinokoji, Kyoto—

Crape.

198. Sayagawa Silk Factory, Aichi-keu—

Raw silk.

199. - Seishi Kosui Goshi Kwaisha, Gunm**a**-ken—

Raw silk.

200. Seki, Gosuke, representative of Toyei Sha, Nagano-keu— Raw silk.

201. Sckikawa, Sozaburo, Nagano-ken—

Raw silk,

202. Sckine, Torakichi, Honkokucho, Nihonbashi-ku, Tokyo— Twilled fabric for foreign dress. Lining for foreign dress.

203. Seki, Shinpei. Niigata-keu-"Habutai."

"Habutai," twilled.
"Habutai," figured.

204. Shibata, Genzayemon, Shiga-

Stitched figured crape. Crape figured.

205. Shimamura, Zensuke, Akezumon Matsubura, Kyoto—

Painted crape.
Painted figured crape.

206. Shimidzu, Jiuuzo, Niigata-

ken—

"Habutai," twilled.

"Horai ori" fabric.

207. Shimodate Silk Manufacturing Co., Ibaraki-keu—

Raw silk.

208. Shimonida - Sha, Gunmakeu—

Raw silk.

209. Shimoshiro, Vaichiro, representative of Isezaki Fabric Manufacturers' Association, Guuma-keu—

Stuff for umbrellas.

"Kohaku."

"Habutai."

Sleeve lining.

Shinkai, Sukeroku, representative of Yawata Silk Factory, Yamanashi-ken—
 Raw silk.

211. Shinsei-Sha, Nagano-ken— Raw silk.

212. Shiraishi Seishi Kigio Kwaisha, Miyagi-ken—

Raw silk.

213. Shojo, Kwan, Nagano-keu-Raw silk.

214. Shoyo-Ken, Nagano-ken— Raw silk.

215. Shummci Goshi Kwaisha, Nagano-ken— Raw silk.

216. Silk Conditioning House, Yokohama—

Raw silk.

217. Sowa, Kaichiro, Tokio—Silk and satin fabrics.

218. Suganuma, Kunihei, Yamanashi-keu— '

Lining of cloths.

219. Sugawa, Kiyoshi, Honcho, Yokohama—

Silk fabric.

"Kobai kaiki," cotton weft.

"Kohaku."

"Kawamata Habutai."

Satin, figured for dress.

"Kohaku."

"Habutai."

"Kohaku," with satin stripe, figured.

"Habutai," twilled.

Crape.

"Kaiki," striped. Crape, figured.

"Kobai kaiki."

220. Suya, Kiuhei, Saunomiya, Kobe— Silk fabric.

Silk labric.

"Kobai" fabric.

221. Suzuki, Jiukichi, proprietor of Yoneya Silk Factory, Miyagi-ken—

Raw silk.

222. Suzuki, Toyosuke, Furo-cho, Yokohama— "Habutai."

223. Taisei Sha, Nagano-ken— Raw silk.

224. Takada Co., Muromachi Sanjo, Kyoto—

Silk crape.

Silk fabric.

Silk crape, figured.

Silk crape, stitched.

Silk crape stitched with colored thread.

Silk fabric, figured.

Figured crape, painted.

Craped satin.

"Habutai," figured.

"Mivoki" silk fabric.

French crape.

225. Takagi, Mankichi, representative of Takagi & Co., Nagoya—

Dved fabric.

226. Takaha, Fujio, Moto-Kyorinchi, Kobe—

Handkerchiefs.
"Habutai."

Silk fabric

227. Takahashi, Kcitaro, Gifukcu—

Crape, figured.

228. Takahashi, Magota, representative of Nagai Gumi, Yamagata-ken—

Raw silk.

- Takanabe Silk Manufacturing Co., Miyazaki-ken—
 Raw silk.
- 230. Takuoka Silk Manufacturing Co., Miye-ken— Raw silk.
- 231 Takata Silk Fabric Co., Niigata-ken— Silk fabric.
- 232. Takayama, Yosokichi, Takoyakushi Nishinotoin, Kyoto—
 Table cloths of painted fabric.
 "Fukusa" cloth of painted fabric.
 Painted fabric.
- 233. Takeda, Kihei, Nagoya—
 "Arimatsu shibori."
- 234. Takei, Torataro, Nagano-Ken— Raw silk
- 235. Tanabe. Shujiro, representative of Bokujo Sha, Gifuken—

Raw silk.

- 236. Tanaka. Scibei, Gifu-ken— Raw silk.
- 237. Tanaka, Tomikichi, Sasayamachi-dori Rokken-machi, Kyoto—

Handkerchiefs.

238. Tango, Chirimen, Yoshagun Orimono Kenkiujo, Kyotofu—

"Namiori" crape.

239. Tase, Kamegoro, Yamagataken—

Raw silk.

240. Tase, Kichiroji, Yamagata-Ken—

Raw silk.

- 241. Tenryu, Sha, Nagano-ken-Raw silk.
- 242. Tenyu, Sha, Nagano-ken-Raw silk.
- 243. Togunsha, Yamagata-ken— Raw silk.
- 244. Tohokusha, Fukushimaken—

Raw silk.

- 245. Tokamachi Fabric Manufacturers' Association, Niigataken—
 - "Kohaku," figured.

"Kohaku," striped.

Satin, white.

"Hananomori" fabric.

- 246. Tokosha, Nagano-ken-Raw silk.
- 247. Toyone Silk Manufacturing
 Co., Miyagi-ken—
 Raw silk.
- 248. Tomita, Daijiro, Nagoya—
 "Arimatsu shibori."

"Arimatsu shibori," table cloth.

249. Tomita, Usaburo, Teranouchi, Omiya, Kyoto— "Shuchin" fabric.

Shuchin fabric for ladies' dress. "Shuchin" fabric for handkerchiefs.

 Tomojima, Kiujiro, Gifuken—

Silk handkerchiefs.

Tonobori, Yoshibei, Ryogaicho, Nijo, Kyoto-Stuff for tapestry.

Fabrics.

White hemp fabrics.

- Toyotama Fabric Manufacture Co., Sendagaya, kyo
 - fabric "Toyotama" for umbrellas.
- 253. Toyama-Ken Export SilkFabric Manufacturers' Asciation, Toyama-ken-"Habutai."
- Tsukahara Sovemon, Yama-254. gata-ken-Raw silk.
- Tsukui, Heiyemon, Beuten-255. dori, Yokohama-
 - Silk fabric interwoven with lace, silk and cotton fabrics.
- Tsuyama Silk Manufacturing Co., Okayama-ken-Raw silk.
- UkitaOkayama-257. Sahei. ken-

Raw silk.

- Uno, Kosaburo, Takoyakushi, Shimmachi, Kyoto-"Habutai." Silk fabric.
- Unpin Sanshi Manufacturing Co., Fukui-ken-Raw silk.
- Ushida, Goro, Yamanashiken-"Kaiki."
- 261. Usui-Sha, Guuma-keu-Raw silk.

- Utsunomiya Silk Manufact-262. uring Co., Tochigi-keu-
 - Raw silk.
- 263. Uyehara, Ichijiro, Representative of Saishin Sha, Nagano-ken-

Raw silk.

264. Uyeno, Shinyemon, Shigaken-

Crape, painted.

Uzen Habutai Manufacturers' Association, Yamatagaken —

"Habutai."

- 266. Uzen Hokko Sha, Yamagataken-Raw silk.
- 267. Wakao, Ikuzo, Hou-cho, Yokohama—

Raw silk.

- 268. Watanabe, Motonosuke, Representative ofWatanabe Silk Factory, Nagano-ken-Raw silk.
- 269. Watanabe, Rokumatsu, Representative of Nagaoka Silk Manufacturing Co., Niigatakeu-

Raw silk.

Watanabe, Tatsuji, Yamagata-ken-

Raw silk.

Yajima, Gumi, Yamanashi-271. ken-

Raw silk.

Yajima, Scijiro, Representative of Yajima Sha, Naganoken-

Raw silk.

Yamada, Shin, Fuknshima-273. ken-

Raw silk.

Yamaguchi, Goro, Shidznoka-ken-

Raw silk.

Yamamoto, Isakichi, Yokohama-

Silk handkerchiefs. "Habutai."

Yamanaka, Genshichi, Aichiken-

"Arimatsushibori."

Yamanashi Silk Manufacturing Co., Yamanashi-ken-Raw Silk.

278. Yasnda. Genzo, Tochigiken-

Twilled "kaiki" for handkerchiefs.

Yawata Silk Manufacturing Co. Shiga-Ken-Raw silk.

Yazaki, Genzo, representa-280. tive of Shinko Kwan, Nagano-Ken-

Raw silk.

Yetsnyo - Kwan, Niigataken-

Raw silk.

282. Yoda. Sajihei, Representative of Jonan Sha, Shidzuoka-ken-

Raw silk

283. Yodo-Sho, Nagana-ken-Raw silk.

YokoSanshi Kabnshiki 284. Kwaisha, Nagano-ken-Raw silk.

285. Yokosuka Silk Manufacturing Co., Shidznoka-ken-Raw silk.

Yunago Silk Manufacturing 286. Co., Tottori-ken-

Raw silk.

287. Yoshida, Kamejiu, Tokvofu -

Gunpowder bags.

Stuff for medicine bag (A).

Stuff for medicine bag (B).

Stuff for medicine bag (C).

288. Yoshida, Yeisuke, Saitamaken-Raw silk.

289. Yoshizawa, Itaro, Naganoken-Raw silk.

Yoshizawa, Sadajiro, Nagano-ken-

Raw silk.

Yui Co., Fukushima-ken-201. "Habutai."

202. Yumei Sha, Nagano-ken-Raw silk.

293. Zenshin Sha, Kanagawaken-Raw silk.

294. Zniho Sha, Nagano-ken-Raw silk.

Znishin Kwan. Nagano-295. ken-Raw silk.

GROUP 58.

Embroidery.

(Palace of Varied Industries.)

1. Aoki. Hachiyemon, Shigaken-

Tapestries.

Curtain.

Folding screen.

Asai, Rihachi, Nagoya—

Curtains.

Stove screen.

Embroidered curtains.

3. Benten-Goshi-Kwaisha, Shimmonzen, Kyoto-

Tapestry of embroidery. Embroidered folding screens. Embroidered bed spread. Pieces of embroidery work. Embroidered costume.

4. Fnjikake, Yozayemon, Tori-Abura-cho, Nihonbashi-ku, Tokyo—

Lace.

 Fujiki. Kaichiro, Kodemmacho, Nihonbashi-ku, Tokyo— Embroidered folding screens.
 Embroidered curtains.

6. Fukui, Genjiro, Kitanaka-dori, Yokohama—

Handkerchiefs.

"Fukusa" (silk wrapper).

7. Fukunaga, Tohei, Tokushimaken—

Tapestry.

Tablet.

Pillow case.

8. Fuma, Kanjiro, Sannomiya, Kobe—

Handkerchiefs.

Shawls.

Kimono (Japanese costumes).

9. Girls' Industrial School, Tokio-

Embroidery.

10. Hachikawa, Unosuke, Awajicho, Osaka—

Doilies.

11. Hasegawa, Shozo, Toyamaken-

Tablet.

Japanese lady's gown.

 Hashimoto, Yoshitsugu, Sakuragi-cho, Yokohama—

Curtains.

Stove screen.

Table cloth.

Pillow cases.

Chair covers.

Tablets.

Hangings.

Scalloped handkerchiefs.

Hemmed handkerchiefs.

Doilies.

Photograph cases.

Curtain.

13. Hayakawa, Tamasaku, Onoyecho, Yokohama—

Silk scallops.

Linen table cloths.

Linen doilies.

14. Iida, Shinshichi, Karasnmaru, Kyoto—

Tapestries.

Folding screens.

Bed spread.

Table cloths.

Tablets. Lady's costume. Cloths to be used for tablets. Curtains

15. Imamura, Hanzaburo, Naga-

Pieces of embroidery work.

Iwata, Toyoo, Yamashita-cho. Yokohama-

Card cases.

Purses

Tablets.

Kimono (Japanese costumes).

Lady's gowns.

Dressing sack.

Shoulder collar.

Lady's summer cape.

Lady's collars.

Shawl.

Table cloths.

Napkins.

Center pieces.

Lace.

Folding screens.

17. Kajimoto, Keikichi, Kobe-Doilies.

Embroidery.

18. Kawashima, Jinbei, Sanjo Higashinotoin, Kyoto-Patent "Hagoromo" fabric.

Patent "Hagoromo" (kubimaki).

19. Kanazawa, Kamekichi, Bungomachi, Osaka-

Gold braid for trimming of military uniforms.

Kanazawa Shi Shishiu, St. Louis (Shuppin Kumiai, Ishikawa-ken)-"Gaku" of embroidery work.

Various kinds of handkerchiefs.

Plate doilies.

Center piece and doilies.

Center pieces.

Embroidered tapestries.

Embroidered pillow case.

Embroideries.

Embroidered cloth.

Screen of embroidery.

Embroidered fans.

Kataoka, Fuyukichi, Ibaraki-21. ken-

Table cloth.

Stove screen. Pillow case.

Chair cover.

22. Kawaguchi, Bunzayemon, Na-

Stove screen.

Table cloth.

Flower vase doilies. Handkerchiefs.

23. Kawashima, Jinbei, Sanjo. Kvoto-

Embroidered curtains.

Kitahama, Sanjiuro, Masago-24. cho, Yokohama-

Handkerchiefs.

Doilies.

Table cloth.

Kitaoka, Gennosuke, Tomino-Koji, Kyoto-

Tablet of embroidery.

Komaki, Bunjiro, Choja-machi. Yokohama-Embroidery.

Midzutani, Tetsuzo, Nagova-

Handkerchiefs.

Plate doilies.

Table cloth.

27. Kori, Kiutaro, Tokushimaken—

Embroidered folding screen.

28. Matsuoka, Kiushichi, Sannomiya, Kobe—

Embroidery.

Fire screen.

29. Mayeda, Yoshichiro, Sabiyecho, Kobe—

Embroidery.

30. Miyata, Totaro, Benten-dori, Yokohama— Hangings.

31. Momonoi, Tatsuo, Yokohama—

Folding screen.

32. Mori, Fuki, Nagoya— Embroidered handkerchiefs.

Stove covers.

Table cloth.

Pillow cases. Cravats.

33. Murata, Tokumatsu, Shinsaibashi-suji, Osaka— "Gaku" of embroidery. Embroidered doilies.

 Nakanishi, Gihei, Fukiya-cho, Nihonbashi-ku, Tokyo—
 Embroidered silk handkerchiefs.

 Nemoto, Seusuke, Minamijimbo-cho, Kanda-ku, Tokyo— Embroidery.

 Nishida, Kahei, Uyeno-machi, Shitaya-ku, Tokyo—
 Tape.

 Nishiha, Yoichiro, Sannomiya, Kobe—
 Embroidery. Nishikawa, Genjiro, Shijo Sakai-machi, Kyoto—

Tassels, W.

Tassels, E.

Tassels, S. Tassels, T.

Tasseis, I

Tassels, R. Tassels, I.

Tassels, V.

Tassels, V.

Tuescis, 7

Tassels, C.

Tassels, O.

 Nishimura, Sozayemon, Sanjo-dori, Kyoto—

Folding screens.

Bed spread.

Screens.

Tablets.

Dresses.

"Fukusa."

40. Okanishi, Katsuzo, Kumoidori, Kobe—

Embroidery.

41. Osachi, Kisaku, Kitanagasadori, Kobe—

Scalloped handkerchiefs.

Hemstitched handkerchiefs.

Shirts.

Shawls.

42. Saito, Kotaro, Nagoya— Dresses.

Embroidered table cloth. Scallops.

 Sakai, Hanbei, Nagoya— Handkerchiefs.

44. Sata, Kcijiro, Nagoya— Stove cover.

Table cloths.

rable cloths.

Pillow cases.

Flower vase doilies.

Handkerchiefs.

45. Sato, Scutaro, Sakai-cho, Yokohama-

Folding screens.

46. Shibabayashi, Sotaro, Namba Sakuragawa-cho, Osaka-"Naniwa" fabric curtains.

47. Shibata. Keijiro. Niigataken-

Insertion.

Lace.

Centre pieces.

Handkerchiefs.

48. Shibata, Matakichi, Hinodecho. Yokohania-

Handkerchiefs.

Shawls.

Table cloth.

Dresses.

Folding screens.

49. Shibata, Matakichi, Kano-cho. Kohe-

Handkerchiefs for ladies.

Table cloths.

Ladies' dress, foreign style.

Collars

Cuffs for ladies.

Vest coat.

Girl's shawl.

50. Shiino, Shobei, Hon-cho, Yokohama-

Dresses.

Dressing sacks.

Table centre.

Shawl

51. Shiozaki, Yosaburo, Sannomiya, Kobe-

Embroidery.

52. Shiozaki, Yushichi, Kitanagasa-dori, Kobe-

Embroidery.

53. Sowa, Kaichiro, Giusa, Kyobashi-ku, Tokyo-

Table cloth of gold thread.

Curtain of gold thread. "Fukusa" of gold thread.

54. Sugawa, Kiyoshi, Hon-cho, Vokohama-

Gold thread and silk embroideries '—

Lambrequin.

Table cover.

Pillow case.

Chair scarf.

Curtain.

Bed spread.

Lace and drawn work:

Ladies' waist front.

Ladies' neckwear.

Ladies' collar and cuffs.

Centre piece.

Doilies.

55. Suya Chojiro, Motohama-cho, Yokohama-

Shawls.

Embroidered handkerchiefs.

56. Snya, Kinhei, Sannomiya. Kobe-

Night gowns.

Jacket.

Chemise.

Shawls.

Embroidered handkerchiefs for

ladies.

Hemmed handkerchiefs for gentlemen.

Neck-ties.

Doilies.

Pillow cases.

Handkerchief cases.

Shirts.

Centre pieces.

Handkerchiefs.

57. Suzuki, Kojiro, Suga-cho, Asakusa-ku, Tokyo-

"Fukusa."

Screen.

Folding screen.

Takagi, Fukujiro, Imakoji, Kyoto-

Folding screens.

Takahashi, Kansaku, Horai-59. cho. Yokahama-

Stitched silk handkerchiefs.

Table cloths.

60. Takemura, Ito, Hon-cho, Yokohama-

Fabric for ladies' dresses.

Japanese dresses.

Table cloth.

Napkin.

Bed spread. Pillow case.

Pillow cases and pillow.

Tea cloth.

Centre pieces.

Plate doilies.

Finger bowl doilies.

Glass doilies.

Tanaka, Rishichi, Karasuma-61. ru-dori, Kyoto-

Folding screens.

Curtains.

"Gaku."

Bed spread, embroidered.

Dresses, embroidered.

Screen of embroidery.

"Fukusa."

Table cloths.

Pieces of painted velvet.

62. Tanaka, Seishichi, Shichijodori, Kyoto-

Bed spread.

Tapestries.

Screens.

"Gaku."

Pillow cases.

Table cloth.

"Fukusa."

62A. Tanaka, Seishichi, Shichijo Karasumaru, Kyoto-

Bed spread.

Tapestries.

Screens.

"Gaku."

Pillow cases.

Table cloths.

"Fukusa."

63. Tomojima, Kiujiro, Gifuken-

Shawls made of crape.

64. Torii, Chiyomatsu, Hon-cho, Yokohama-

Bed spread.

Curtains.

Japanese dress.

Shawl.

Fabric for blouse.

Blouse.

Centre piece.

Ladies' night gowns.

Mantel cover.

Pillow case.

Tapestry.

Bed spread.

Curtains.

 Yamamoto, Kenjiro, Nagoya— Embroidery.

66. Yamamoto, Naojiro, Bentendori, Yokohama-

Kimono (Japanese costume).

Centre piece.

Plate doilies.

Folding screen.

Bags.

Pocketbook.

Dresses.

Tapestry.

Centre piece.

Plate doilies.

67. Yamamoto, Shichijiro, Nagoνa---

Embroidery scallops.

Embroidered plate doily.

Embroidered shawl.

Ladies' neckties

Chemise.

Ladies' dresses.

68. Yamanaka, Shigejiro., Representative of the Yamanaka Co., Kitahama, Osaka.

Bags.

Folding screens.

69. Yegami, Sadajiro, Nagasaki-"Gaku" of embroidery.

GROUP 59.

Industries Producing Wearing Apparel.

(Palace of Manufactures,)

- 1. Arakawa, Masujiro, Mushanokoji Karasumaru, Kyoto-Dress.
- "Hakata" Fabric Association. Fukuoka-ken-

"Hakata" fabric for vest.

3. Hattori, Youyemon, Nagoya, Aichi-ken-

Dved fabric.

4. Iida, Shinshichi, Karasumaru, Takatsuji, Kvoto-

Gentleman's Japanese suits. Japanese ladies' suits.

Yeitaro, Sakai-cho. 5. Iijima. Yokohama—

Night gown of "Habutai."

6. Ishikawa, Seiyemon, Bentendori, Yokohama-

Night gown of silk. Night gown of cotton.

7. Iwata, Toyoo, Yamashita-cho. Yokohama-

Ladies' gowns.

8. Kitahama, Sanjiuro, Masagocho, Yokohama-Dresses.

9. Kono, Nisaburo, Representative of Takuo Shokwai, Kitahama, Osaka-

Waterproof fabric for ladies' overcoats.

"Unsai" fabric.

Fabric for tents.

Fabric for weather clothes.

Ladies' overcoats.

Silk fabric.

Overcoat for sailors.

Gentleman's overcoats.

10. Matsumoto, Akitsu. Kyomachi-dori. Osaka -Full dress of officials of the

"Shinnin" rank.

Hat.

Sword.

11. Okabe, Kikutaro, Onove-cho, Yokohama-

Dresses.

 Shibata, Matakichi, Hinodecho, Yokohama—

Dress of silk.

Night gown of "Kobai" silk.

13. Suya, Kiubei Sannomiyaya, Kobe—

Dresses.

Night-gown for ladies. Night-gown for gentlemen.

14. Tani, Otoshiro, Benten-dori, Yokohama—

Dress.

Night-gown.

Summer dress of cotton.

Summer dress.

 Yamazaki, Suyekichi, Owaricho, Kyobashi-ku, Tokyo.
 Full dress of the officials of the "Chokunin" rank.

Full dress of the masters of ceremony of the Japanese Imperial household.

 Yano, Ushioto, Representative of Nippon Waterproof Fabric Co., Kyomachibori-dori, Osaka—

Overcoat of waterproof "habutai."

Overcoat of waterproof fabric.

GROUP 60.

Leather, Boots and Shoes, Furs and Skins.

(Palace of Manufactures.)

t. Fujikawa, Ruizo, Taihoku, Formosa—

Hats.

 Formosa Hat Manufacturing Co., Taihoku, Formosa— Hats.

- 3. Goto, Takejiro, Tokyo-fu— Deer skin leather.
- Hashimoto, Kanejiro, Nishihama-Kitadori, Osaka—
 White cow skin leather.
 Deer skin leather.
- Hirata, Tsunejiro, Motoiwaicho, Kanda-ku, Tokyo— Belt.
- 6. Ishida, Kamekichi, Junkeimachi, Osaka—

Leather.

7. Katagi, Tokumatz, Hyogoken, Kobayashi Ryonosuke, Tokyo—

Leather.

Painted leather.

8. Kobayashi, Ryonosuke, Tori-Abura-cho, Nihonbashi-ku, Tokyo—

Cuff cases.

Collar cases.

Belt.

 Kobayashi, Tobei, Tori-Aburacho, Nihonbashi-ku, Tokyo—

Painted leather.

 Kogo, Tetsujiro, Omote-machi, Honjo-ku, Tokyo—
 Painted leather.

11. Komaki, Bunjiro, Choja-machi, Yokohama—

Hair pins.

Card cases.

 Kumagaye, Taijiro, Wakamatsu-cho, Nihonbashi-ku, Tokyo—

Painted leather.

13. Kninagaye, Uhachi, Yagenbori, Nihonbashi-ku, Tokyo—

Painted leather and belt. Belts.

 Matsugane, Shiujiro, Sotodemachi, Honjo-ku, Tokyo— Painted leather.

Lacquered leather.

15. Matsushita, Kumatsuchi, Hokkaido—

Bed spread.

Boa of seal.

 Mayeda, Shichisaburo, Hyogokeu—

White leather.

17. Nozawa & Co., Moto-kyorinchi, Kobe—

Leather.

18. Numada, Yukichi, Nishihama, Osaka—

Painted leather.

19. Ogaki, Isaburo, Hyogokeu— Leather.

20. Ono, Yasnji, Hyogoken— Leather.

 Shimidzu, Kisnke, Shinzaimoku-cho, Nihonbashi-ku, To-'kyo—

Various kinds of painted leather.

22. Taiko Hat and Matting Mannfacturing Co., Byoritsu, Formosa—

Hats.

Takci, Masaji, Taihoku, Formosa—

Hats.

24. Uraku, Ushichiro, Hyogoken— Leather.

GROUP 61.

Various Industries Connected With Clothing.

(Palace of Manufactures.)

 Arakawa, Masnjiro, Ayanokoji, Karasumaru, Kyoto— Cravats.
 Belt.

2. Asahi, Goshi Kwaisha, Kiyomizu, Kyoto—

Neck-ties.

Brooches.

 Asai, Sckisci, Tachibano-cho, Nihonbashi-ku, Tokyo—
 Artificial flowers for head-dress.

4. Baba, Banzo (Representative of Seisan Hanbai Kobai Kumai), Kumamoto-ken—

Straw braid.

5. Chikami, Kokin, Kochi-ken—Chip braid.

Mixed braid of shaving and straw.

Braid of straw.

6. Dansen Seizo Kumiai, Tsn.
Miye-ken—
Fans.

 Fujii, Kinzaburo, Hiroshimaken—

Straw braid.

8. Fujii, Nakaichi, Hiroshimaken—

Straw braid.

9. Fujii, Yaoji, Hiroshima-ken-Straw braid.

 Fnjiki, Kaichiro, Kodemmacho, Nihonbashi-kn, Tokyo— Fans. Fujioka, Gen, Yedobori, Osaka—

Knitted stuff.

12. Fujio, Suyeji (Representative of the Fujiyama Shokwai), Hyogo-keu—

Buttons.

 Geisei, Mugiwarasanada Kojo, Kochi-ken—

Straw braid.

14. Gifu-ken, Karakusa Kumiai, Gifu-ken—

Fancy umbrellas.

Calico umbrellas.

Silk umbrellas.

 Goto, Youetaro, Gifu-keu— Parasols.
 Fans.

 Hamatani Goshi Kwaisha, Temmabashi, Osaka— Felt hats.

17. Hanabusa, Rakutaro, Kochiken—

Straw braid.

- 17A. Habusa, Sakaye, Kochi-keu— Straw braid.
- Hanabusa, Tadaichi, Kochiken—

Straw braid.

19. Harata, Inosuke (Representative of the Okayama-ken Straw Braid Manufacturers' .1ssociation), Okayamaken—

Various kinds of straw braid. Braids of straw, shaving and various kinds of glass.

 Hattori, Youyemou, Nagoya— Straw braid. 21. Hayashida, Shinuzo, Nagasaki-keu—

Umbrellas for ladies.

Umbrellas for gentlemen.

 Hirano, Kingoro. Tominokoji Gojo, Kyoto—

Folding fans.

 Hirata, Tsunejiro, Motoiwaicho, Kanda-ku, Tokyo— Cravats.

24. Idzumi, Sakichi, Bakuro-cho, Osaka—

Stockings.

Gloves.

Neck-ties.

Neck-ties.

Tassel for umbrella.

25. Idzumi, Zenshichi, Gifu, Gifuken—

Folding fans.

 Igarashi, Katsutaro, Sotodemachi, Honjo-ku, Tokyo— Umbrella handles.
 Umbrella handles for lady.

 Iho, Jiutaro, Shiga-ken— Folding fans.

28. Iijima, Yeitaro, Sakai-cho, Yokohama—

Shirts.

Night gown of "Habutai." Shirts of "Habutai."

Silk undershirts for ladies.

Gentlemen's silk stockings. Ladies' silk stockings.

 Ikeda, Chimataro, Futatsuido, Osaka—

Knitted cotton undershirts. Knitted cotton drawers.

30. Ikeda, Takuzo, Hiroshimaken—

Straw braid.

31. Ikeda, Yonekichi, Tachiuri-Nishimachi, Kyoto— Knitted silk undershirts. Knitted silk drawers. Knitted woolen shirts.

 Inagaki, Masashichi, Minamikiuhoji-machi, Osaka—
 Folding fans.

Inouye, Ginnosuke, Teramachi
Oike, Kyoto—
Knitted undershirts.

34. Inouye, Mohei, representative of the Nagoya Ogi Boyeki Gumi, Nagoya— Folding fans.

35. Inouye. Seu, Junkei-machi, Osaka—

Umbrellas. Sticks.

Umbrella handles.

36. Ishii, Katsujiro, Temmabashisuji, Osaka—

Knitted undershirts.

37. Ishikawa, Seiyemon, Bentendori, Yokohama—

Shirts.

Cotton crape shirts.

Silk shirts.

Silk nightgown.

Cotton nightgown.

Cuffs and collars.

38. Ishiwara, Yeitaro, Higashinotoin, Kyoto—

Parasols.

 Ishizaka, Seishiro, Kumamotoken—

Straw braid.

40. Ishizumi, Kisaburo, Yanaginobanba, Kyoto— Folding fans. 41. Ito, Asagoro, Aichi-ken—
Chip and straw braid.
Specimens of chip and straw braid

42. Iwata, Toyoo, Yamashita-cho.
Yokohama—
Gentlemen's stockings.
Ladies' stockings.
Gentlemen's undershirts.
Ladies' undershirts.
Ladies' combination.
Parasols, Iapanese.

43. Kagawa-ken Straw Braid
Manufacturers' Association.
Kagawa-ken—
Chip braid.

Straw braid

Umbrellas.

 Kamekawa, Chiukichi, Hiroshima-ken—
 Straw braid.

45. Kamihara, Kotaro, Hiroshimaken—

Straw braid.

46. Kamimura, Shosuke, Minami-Kiuhoji-machi, Osaka— Artificial flowers. Artificial flowers for head dress.

Basket of artificial flowers.

47. Kano, Shiuken, Nogoya—
Folding fans.

48. Katagiri, Kamakichi, Aichiken—

Straw and chip braid.

49. Kato, Chohei, Gifu-ken-Fans.

 Kato, Yoshitaro, Nagoya— Folding fans. 51. Kawai, Tomiya, Azuchi-machi, Osaka—

Shirts.

52. Kishida, Makitaro, Hiroshimaken—

Straw braid.

53. Kitsu, Keijiro, Miye-ken— Shaving braid. Straw braid.

Mixed straw and shaving braid. 54. Kochi-ken, Mugiwarasanada,

Mohan Kojo, Kochi-ken— Shaving braid.

Straw braid.

Mixed straw and shaving braid.

55. Koidzumi, Scizaburo, Hiroshima-ken—

Straw braid.

56. Kojima, Kanshichi, Ota-machi, Yokohama— Umbrellas.

 Kono, Masakichi, Kochi-ken— Shaving braid.

Braid of mixed shaving and straw.

Straw braid.

58. Koyama, Zentaro, Okayamaken—

Specimens of shaving braid.

 Kuruyama, Iwakichi, Hiroshima-ken—
 Straw braid.

60. Kuruyama, Minekichi, Hiroshima-ken—

Straw braid.

51. Kyoto Joshi Shugci Gakko, Kyoto—

Pot of artificial cherry flowers.

Pot of artificial wistaria flowers Pot of artificial pine tree. Basket of artificial flowers.

62. Machida, Kinkichi, Nagasakiken—

Umbrellas for gentlemen.

63. Maki, Katsutaro, Hiroshimaken—

Straw braid.

64. Marugame Dansen Goshi Kwaisha, Kagawa-ken—

Fans.

65. Matsuyoshi, Kahci, Bingomachi, Osaka—

Fans.

Parasols.

66. Mayeta, Yoneichiro, Kochikeu—

Chip braid.

Mixed braid of chip and straw. Straw braid.

67. Mayeda, Yosihiro, Sabiye-cho, Kobe— Fans.

 Minagawa, Yoshizo, Tomizawa-cho, Nihonbashi-ku, Tokyo—

Sticks.

Umbrella handles. Umbrellas.

 Misaki, Scitaro, Tachinri, Higashi-machi, Kyoto— Artificial flowers.

 Miwa, Zenbei, Tachibana-cho, Nihonbashi-ku, Tokyo— Artificial flowers for ornament.

71. Miyata, Totaro, Benten-dori, Yokohama—

Folding fans.

Fans.

72. Morii, Kiichiro, Bukkoji, Nishinotoin, Kyoto-Belt for gentleman.

Belt for lady.

73. Mori, Kichi, Tokyo-Artificial flowers for electric lamp.

74. Mori, Sakaye, Kochi-ken-Shaving braid.

Mixed braid of shaving and straw.

Straw braid.

75. Morishita, Scibei, Kitahoriye-Shimodori, Osaka-

Knitted undershirts.

Knitted drawers.

76-Murakami, Atsushi, Maruyama, Kyoto-Folding fans.

Fans.

77. Aichi-ken Straw Braid Association-

Straw and shaving braid.

Specimens of straw and shaving braid.

78. Nagano, Mototaro, Omotejinbocho, Kauda-ku, Tokyo-Sleeve buttons.

Brooches.

79. Nakagawa, Sataro, Sanjo-Hashi-Higashi, Kyoto-

Cotton undershirts and drawers. Undershirts.

Ladies' undershirts. Cotton stockings.

80. Nakai, Shoten, Sannomiya, Kobe-

Parasols.

Fans.

81. Nakamura, Genzo, Nagoya-Folding fans.

Sosuke. Tachi-Nakamura. Nihonbashi-ku. bana-cho, Tokyo-

Umbrella handles.

83. Nakao, Ihci, Minami-Kinhojimachi, Osaka-

Fancy parasols.

Stove screen.

Parasols.

84. Nishiyama, Masujiro, Hiroshima-ken -Straw braid.

85. Nissei-Kwan, Hyogo-ken-Chests of drawers.

86. Numakura, Kogoro, Odemmashiwo-cho, Nihonbashi-ku. Tokyo-"Karakusa."

87. Ogata, Magoyemon, Hiroshima-ken-

Straw braid.

Ogata, Yoshisuke, Hiroshimaken-

Straw braid.

Okito, Kotaro, Hiroshimaken-

Straw braid.

90. Okutani, Shobci, Osaka-fu-Shaving braid. Straw braid. Shaving material.

Okutsu. Fukumatsu. Yokohama-

Shaving braid.

Okazaki, Kiutaro, Kochi-ken-Straw braid.

93. Onishi, Yo, Gifu-ken— Fans.

 Osaka Dansen Seizo Goshi Kwaisha, Unagidani-Nakamachi, Osaka—

Fans.

95. Osawa, Kametaro, Bentendori, Yokohama— Parasols. Umbrelias

96. Otaira, Motosaburo, Hiroshima-ken— Straw braid

97. Sakamoto, Josaku, Kochiken— Straw braid.

98. Sakamoto, Tomoshichi, Minamidemma-cho, Kyobashi-ku, Tokyo— Umbreflas. Sticks.

99. Sakata, Bunsuke, Tominokoji Takatsuji, Kyoto— Folding fans. Fans.

100. Sakata, Okizo, Hiroshimaken— Straw braid.

101. Sakurai, Yeizo, Sukiya-cho, Shitaya-ku, Tokyo— Sleeve buttons. Pins.

102. Sanuki Seisan Dogyo Kumiai, Kagawa-ken— Parasols.

103. Sensu Shokwai, Kyoto-fu— Folding fans. 104. Shibata, Matakichi, Hinodecho, Yokohama—

Shirts.

Ladies' vests. Ladies' shirts.

Ladies' collars.

Girls' collars.

Collars for old ladies.

Cuffs for ladies.

Shawl.

Fans.

 Shibata, Matakichi, Kanomachi, Kobe—
 Fans.

106. Shimoda, Kozo, Kumamoto-·ken—

Straw braid.

107. Soga, Rikichi, Kochi-ken— Shaving braid. Braid of mixed shaving and straw. Straw braid.

108. Sugano, Shinsaku, Toyamaken— Shaving braid.

Shaving braid.

 109. Sugawa, Kiyoshi, Hon-cho, Yokohama—
 Linen neckties.
 Specimens of collars and cuffs.
 Specimens of insertion.

110. Sunamoto, Fukumatsu, Kawara-machi, Osaka— Sticks.

Umbrella handles.

111. Suya, Kiuhci, Sannomiya, Kobe—

Parasols.

Fans.

112. Suzuki, Kojiro, Suga-cho, Asakusa-ku, Tokyo-

Folding fans.

Fans.

Artificial flowers.

Tachibana Gun Straw and Shaving Braid Association, Kanagawa-ken-

Shaving braid.

Taige, Kaichiro, Hiroshimaken-

Straw braid.

115. Takebe, Jiunzo, Nakayamatedori, Kobe-

Parasols.

116. Takci, Shirni, Goshi Kwaisha, Gifu-keu-

Small fans.

Round folding fans.

Takemura, Ito, Hon-cho, Yo-117. kohama-

Collars and cuffs. Sailors' collars.

118. Tanabe, Ichiji, Kochi-ken-Shaving braid. Mixed brand of shaving and straw.

Straw braid.

110. Tanaka, Scikichi, Nagasumicho, Asakusa-ku, Tokyo-Fans.

Taui. Otoshiro. Benten-dori. 1.20. Yokohama— Silk jackets.

Shirts of "Habutai."

Cotton crape shirts.

Teikoku Seibo Kahushiki 121. Kwaisha, Shizuoka-ken-

Hats

Teshigawara, Goshi, Kwaisha. Gifu-ken-

Faus.

Fancy parasols.

Tokyo-fu Yebara-Gun Straw 123. Braid Association, Takyofu—

Shaving braid.

Toraki, Hikotaro, Kanagawaken-

Shaving braid.

Shaving braid set in frame.

Materials of shaving.

Uta, Hikosaburo, Hiroshimaken-

Straw braid.

126. Waida, Kaichi. Amijima, Osaka-

Cotton crape shirts.

127. Yagi, Fukumatsu, Tosabori-Uramachi, Osaka-

Undershirts and drawers for summer.

Undershirts for summer.

Undershirts and drawers for winter.

128. Yamada, Kinjiro, representative of Osaka Artificial Flower Traders' Association. Minami - Kinhoji - machi. Osaka—

Artificial flowers.

120. Yamada, Nizo, Aichi-ken-Straw and shaving braids.

Specimens of straw and shaving braids.

- 1 30. Yamaguchi, Heisaburo, Aioicho, Yokohama— shima-ken— Shaving braid. Straw braid.
- 131. Yamanaka, Shigejiro, representative of Yamanaka Shokwai, Kitahama, Osaka—

 Artificial flowers. 133. Yoshii, Moyemon, Kitahama, Osaka—
 Folding fans.

CHAPTER V.

DEPARTMENT OF MACHINERY.

All the Exhibits of this Department are Installed in Japanese Section in the Electricity Building.

Exhibits.

Belts.

GROUP 62. Steam Engines.

 Shibaura Works of Mitsui & Co., Tokio—
 Model of Miyabara's water tube steam boiler.

GROUP 64.

General Machinery.

- Ashimori, Buhei, Osaka— Cotton rope.
- 2. Fukuoka, Masaro, Tokio— Belts.

- II yakko Co., Tokio— Fire extinguisher.
- 4. Nitta, Chojiro, Osaka— Belts. Packing.
- Picker.
 5. Sakane, Mango, Osaka—

GROUP 65.

Machine Tools.

 Fukushima, Yoshitaro, Tokio—
 Files.

JAPANESE SECTION-PALACE OF ELECTRICITY.

CHAPTER VI.

DEPARTMENT OF ELECTRICITY.

Exhibits.

GROUP 67.

Machines for Generating and Using Electricity.

 Shibaura Works of Mitsui & Co., Tokio—

Kishi's direct coupled continuous current dynamo and steam engine.

Coil for magnetic field of dynamo.

2. Shibaura Works of Mitsui & Co., Tokio—

Iijima's extra high tension transformer for testing 150,000 volts.

GROUP 70.

Telegraphy and Telephony.

1. Oki Co., Tokio—

Morse's ink writer.
Double current key.
Dervil's telephone transmitter.
Solid back telephone transmitter.
Iwata's telephone transmitter.
Table telephone,
Self-restoring annunciation drop.
Double-wire simple standard switch board.
Cables.
Paraffin wires.
Wires.

Subscriber's receiver cords.

Telephone operator's receiver cords.

Transmitter cords.

Double core plag cords, white.

Double core plag cords, red. Three core table telephone.

Transmitter cords.

Five core table telephone transmitter cords.

GROUP 71.

Various Applications of Electricity.

1. Japan Electric Association, Tokio—

Table of electric industry in Japan.

Kioto City Council, Kioto—
 Photographs of canal route with
 water power electric plant.
 Plan of the same.
 History of the same.

3. Oki & Co., Tokio— Wheatstone's bridge. Tangent galvanometer. Differential galvanometer. Asiatic galvanometer. Tsuboi's block instrument.

 Saiga, Tokichi, Kioto — Models of water power electric plant in Iyo.
 Photographs of the same.

5. Tanaka & Co., Tokio— Electric medical instrument.

CHAPTER VII.

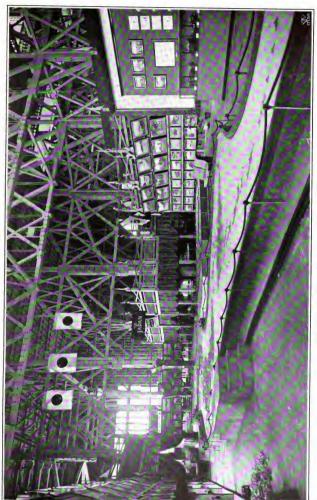
Department of Transportation.

Introductory Remarks.

I. Post.

A system of "post station" originated in Japan in the ancient times. Official documents and treasures were transmitted by this means. During the three centuries of military rule of the Tokugawa family after the beginning of the Seventeenth Century, this system of communication attained a considerable degree of perfection, postal stations having been established throughout the country. The restoration of the Imperial Government marks another era of the advancement of this means of communication. It was, however, in the year 1870, that the Government inaugurated a new postal system, which, though crude, was modeled after the Western post service. In accordance with the new system, a post office was established in each of the three metropolitan cities, Tokyo, Saikyo, and Osaka; post stamps were issued, and post boxes were placed in every important place. The three post offices were soon followed by five more offices distributed among five ports. In March, 1872, mails were delivered thrice a day for the first time in Tokyo. In April of the next year, a uniform rate of postage was adopted throughout the country with a certain distinction between urban and rural deliveries. In December of the same year, postal cards were issued. A system of postal money order was adopted in January, 1874. In the succeeding year a postal savings system was adopted.

Previous to 1882, two different rates of postage were in practice for the urban and rural deliveries; but at the end of that year such distinction was entirely abolished, adopting an absolutely uniform rate. In 1886, the post office was united with the telegraph office; in 1892, parcel post was inaugurated; in 1903, a regulation for transmitting mail matter by railroad or vessel was enacted. We may safely say that at present the postal service of Japan is inferior to that of no other country.



JAPANESE SECTION-PALACE OF TRANSFORTATION.

The following table gives some idea of the growth of our postal service during the four years following 1898:

Year.	Postal telegraph office.	Post office.	Sub- station.	Post. stamp, sales sta.	Mail Box.	P. O. Box.
1890	1,200	2,612	651	39.351	40,230	953
1900	1,3,38	2,586	894	41,499	42.526	980
1901	1,446	2,605	1,069	43,106	44,509	1,128
1902	1597	2,556	1,362	45.192	469,932	1,078

The number of private boxes is comparatively small, as the delivery of mails is very frequent in Japan.

The following table shows the total mileage of postal routes for the four years from 1800 to 1902, inclusive:

	ORD	INARY MAIL.			POST PARCEL.	
	Ordinary road.	Rail- road.	Water- way.	Ordinary road.	Rail- road.	Water- way.
1899	12,018.28	3,580.71	25,820.32	10,419.83	3.580.71	10,029.73
1900	12,340.72	3,817.67	13,849.00	11.162.40	3,817.67	12.608.00
1901	12,586.94	4.029.78	18,843.50	12,241.50	4.029.78	18,843.50
1902	12,824.19	4,217.47	17,109.20	12,532,97	4.217.46	17,109.20

Again, the following table shows the number of various mail matter dealt with by the post office:

Year.	Letters.	Cards.	Newspapers and Periodicals.	Books and Pamphlets.
1899	155,686,922	334,023,258	110,073,373	8.095.574
1900	180,232,462	399,529,531	135,326,547	9,726,431
1901	196,515,449	442,093,231	141,700,982	9,206,821
1902	213,956.370	488,890,747	1 30.553.746	9.982,333

		No	. Mail Matters.	Post
Year.	Others.	Total.	per capita.	Parcels.
1899	22,014,688	629,893,815	13.57	6,018,011
1900	26,319,006	751,133,978	15.99	7.759,162
1901	31,975,315	821,491,798	17.09	9.885.590
1902	39,378,846	902,701,042	18.54	10,419,693

The first foreign mail service of Japan was opened by the conclusion of the Postal Convention between the United States of America and Japan in 1873, previous to which our communications with foreign countries were carried on by the postal agencies of Great Britain, the United States and France. In 1876, the Government established a post office at Shanghai, opening a regular mail route between that port and Yokohama. Shortly later, another Japanese post office was established in Korea. It was in March, 1877, that Japan entered the International Postal Union.

At first, the foreign mail service had been limited to the three kinds of mail matters, *i. e.*, letters, newspapers, and books. In 1875, general printed matters and samples of merchandise were added to the above list. Again, the postal cards and commercial papers began to be dealt with in the foreign mail service in 1877 and 1880 respectively.

The growth of the foreign mail service of Japan since 1899 is shown in the following table:

Year.	Dispatches.	Arrivals.
1899	3,428,042	3,221,323
1900	5,379.901	6,383,666
1901	6,520,699	7.140,960
1902	6,776,575	7.010,517

The foreign parcel post service was first opened in 1879, when an agreement was concluded with Hongkong, which was followed by an agreement with Canada, in 1890. In 1894 and 1896, a similar agreement was made with Germany and England respectively. The parcel post agreement was concluded with the United States of America in the present year.

The number of post parcels dispatched abroad or arriving in Japan for the four years following 1890 is shown in the following two tables:

DISPA		

Year.	Canada.	Germany.	England.	France.	Hongkong.	Total.
1899	304	358	4,186	502		5.350
1900	391	678	3,505	580		5.154
1901	420	980	4.892	677		6,969
1902	1,422	496	6,869	483	135	10,485

ARRIVALS.

Year.	Canada.	Germany.	England.	France.	Hongkong.	Total.
1899	291	1,816	5,225	1.093		8,425
1900	378	3,070	6,225	1,229		10,902
1901	303	2,508	5.515	1,142		9,468
1902	. 518 .	4,593	6,568	1,263	715	13,656

The postal money order service has been practiced since 1875. In 1879, the foreign postal money order service was first opened as the result of an agreement with Hongkong for the exchange of postal money orders. This was followed by similar agreements with England, France and the United States of America. In 1885, Japan joined the International Postal Money Order Union, and in 1889 another agreement of the same nature was concluded with Canada.

The following two tables show the growth of our postal money order service since its inauguration:

DOMESTIC ORDER.

	No. of	No. of	Amount of
Year.	Offices.	Applications.	Money.
1875	222	115,703	2,123,146
1881	678	489,568	7,655,202
1891	2,122	2,605,116	20,715,040
1901	5,123	7,661,919	. 88,062,519

FOREIGN ORDER.

1875				
1881	129	1,894	41	1,070
1891		64,729	2,980	109,270
1901	0.994	189,256	40,917	2,954,635

II. Telegraph.

The first telegraph service ever inaugurated in Japan was that By the year 1885, main telegraph between Tokyo and Yokohama. lines were well-nigh extended to all parts of the country. This expansion of telegraph service necessitated the revision of the Telegraphic Service Regulations, in May of the same year, which adopted a uniform rate of fee throughout the country, irrespective of distance. In 1890, the mileage of telegraph routes was greatly enlarged, and cables were laid, connecting main islands which compose Japan proper. The cable service was soon extended to minor islands belonging to Japan. Meanwhile, telegraph lines attached to the railroads were vastly extended to be utilized by the public. According to the statistics of 1002, the total mileage of telegraph routes stood at 6,610 ri, telegraph lines, 32,258 ri; the number of postal telegraph offices, 1,502; telegraph offices. 30: postal telegraph sub-stations, 565; and the total mileage of cable lines, 2,130.

The following table shows the development of our telegraphic service since 1871:

			Mileage	-
Year.		offices.	routes (ri).	lines (fi).
1871		. 4	19	19
1881		169	1,871	4,666
1891	. : .	524	3,244	9,245
1901		1,856	7,361	31,170

After the completion of a telegraph line between Tokyo and Nagasaki, in 1873, the Japanese telegraph offices accepted foreign telegrams, but, at that time, as our country had not yet joined the International Telegraph Convention, it could have no direct communication with foreign countries; the transmission of messages was limited within the boundaries of the Empire, all communication beyond Nagasaki being entrusted to the Great Northern Telegraph Company, of Denmark, which laid cables between Nagasaki, Shanghai and Vladivostock in 1870. Since March, 1878, however, all international communications have been transmitted directly by our telegraph offices, in conformity with the stipulations of the International Telegraph Convention. In 1879, Japan promulgated the International Telegraphic Union Treaty which went into effect in January, 1880.

In 1882, Japan induced the Great Northern Telegraph Company to add new cables connecting Nagasaki with Shanghai on one hand and Vladivostock on the other. Following the acquisition of Formosa, the Government laid a cable between that island and Fuchow, China.

The following table shows the number of dispatches and arrivals of foreign telegrams for four years:

	No. of	No. of
Year.	dispatches.	arrivals.
1899	196,561	205,717
1900	273.924	294,085
1901	353.624	382,438
1902	399.348	426,268

III. Telephone.

The first long-distance telephone Japan has ever possessed was that which was constructed between Tokyo and Yokohama in November, 1877. In 1888, another line was opened between Tokyo and Atami, which was shortly afterward extended to Shizuoka. In 1889, Tokyo and Osaka were connected by a new line. In the following year, the service was opened to the people at large in Tokyo and Yokohama and between the two cities. The service was opened in Osaka and Kobe in 1893; in Kyoto in 1897; in Sakai and Nagoya in 1898. The telephone service is undertaken by the Government exclusively.

The following table shows the growth of telephone service since 1899:

Year.	Tele- phone Exch. Offices.	Tele- phone Call Offices.	Auto- matic Call Offices.	Sub- scribers.	Naked Overhead Wires. (ri.)	Overhead Cables. (ri.)	Under- ground Cables.
1899	. 20	52	I	11,813	11,703.83	2,837.86	3.594.51
1900	. 25	70	4	18,668	14,225.75	4.367.31	7,518.00
1901	. 25	112	67	24,887	15,487.06	5,053.50	14,694.08
1902	. 29	151	1.34	29,941	17,113.41	6,599.42	19,618.84

IV. Railroads.

The first railroad of Japan was constructed by the Government between Tokyo and Yokohama in 1872. This was soon followed by greater undertakings of the Government as well as of private capitalists. The rapid growth of the mileage of the railroads in Japan is shown in the following table:

	Government Railways.	Private Railways.	Total.
Year.	(Mile.)	(Mile.)	(Mile.)
1872	. 18.00		18.00
1877	. 65.11		65.11
1882	. 170.66		176.66
1887	. 300.43	293.24	593.67
1892	. 550.49	1,220.28	1,870.77
1897	. 661.65	2,287.05	2,948.70
1902	. 1,104.52	2,915.40	4,020.12

All the railroads of Japan are of a narrow guage of three feet six inches. At first, rails, locomotive engines and cars were all imported; but soon afterward the Bureau of Railway Construction of the Government successfully undertook the manufacture of locomotives and cars. This example was quickly followed by private factories at Kobe, Omiya, Hiogo, and several other places. Rails are not manufactured by any private factories, but the Government iron foundry has been producing them for some time to a considerable volume.

Electric railways have been constructed in several important towns. Tramways are also in use. The following table shows the growth of these two means of transportation:

Year.		Amount of capital.	Length of routes (ri).
1899	. 15	3.326,050	44.25
1900	. 16	3,923,560	44.16
1901	. 18	5.475,165	76.44
1902	. 30	7.515,444	106.38

Beside the electric railways and tramways shown in the above table, a considerable mileage of electric railways has been added in Tokyo and other important cities during the last and the current year. Many kinds of carriages are also in use, assisting greatly in facilitating the means of transportation. They are shown in the following table:

	Drawn by Horse. For		Cart Drawn by	Wagon Drawn by	Wagon Drawn by		
Year.	Riding.	Wagon.	Man.	Man.	Ox.	Others.	Total.
1899	5,282	82,616	208,032	1.332.012	31,992	22,126	1,682,060
1900	6,104	90,103	205.390	1,322,309	30.501	31,594	1,686,001
1901	6.595	97.096	200,991	1.334.373	22,680	59,616	1.721.351
1902	6,800	92,389	195,771	1,335,838	28,308	57.355	1,716,461

V. Water Transportation.

Being surrounded by seas and oceans and richly furnished by rivers and streams, Japan has naturally developed means of water transportation from the ancient times. Except for the exclusive and inclusive policy enforced by the Tokugawa Government during the Middle Ages, our maritime navigation would have been advanced to a much greater extent. After the restoration of the Imperial Government, the shipping traffic of Japan suddenly commenced to prosper with remarkable rapidity. The coasting trade and inland water service of Japan has been carried on exclusively by native companies. A large number of Japanese vessels are plying regularly between our ports and all the important ports of the Asiatic Continent and Australia, and Europe and America.

The following table shows the total number and gross tonnage of registered Japanese vessels for six years:

	Stea	ım Ship.	Sailing Ship.		
	No. of		No. of		
Year.	 ships, 	Tonnage.	ships.	Tonnage	
1897	175	426,624	69	27,412	
1898	202	464,246	635	149,385	
1899	261	458,376	1,752	270,162	
1900	349	534,239	2,201	306.393	
1901	427	577,195	2,362	324.995	
1902	479	604,627	2,348	328,192	

Beside the registered vessels given in the above table, there were 950 unregistered steamships and sailing ships of modern style, with a total tonnage of 32.873; 18.743 sailing vessels of native style with a freight capacity of 2.351.950 koku; and 626.611 smaller vessels.

According to the statistics of 1902, the total number of licensed officers for foreign-shaped ships stood at 16,310, of which 587 and 405 are captains and chief engineers respectively.

As to the nautical signals of Japan, the statistics of 1902 enumerates Government signals as follows: 110 light houses: 5 light poles: 2 light-ships; 2 guide lights; 27 floating marks; 14 standing marks; 1 shore mark, and 12 alarm signals. Private signals in the same year comprised 6 light houses and 9 standing marks.

Keeping pace with the development of marine transportation, the art of shipbuilding has been remarkably improved during recent years. The first shipvard built after the Western method was installed by the Government soon after it bought a Western steamer in 1860. Since that time private shipyards have been steadily increasing until in 1902 their total number stood at 186, including both large and small establishments. The larger shipyards of these are able to build ships of a tomage of six or seven thousand each. Besides these private establishments, there are at present three Government shipyards, which are exclusively devoted to the making of war vessels and ordinary ships to be used by the Government. The total number of ships, large and small, built at private shipyards, was estimated at 238, with a gross tomage of 28,554.

Exhibits.

GROUP 72.

Carriages and Wheelwrights' Work.

Yamada, Takuzo, Osaka—
 Perambulators (installed in Japanese Section, Palace of Manufactures).

GROUP 74.

Railways: Yards, Stations, Freight Houses, Terminal Facilities of All Kinds.

1. The Imperial Bureau of Post and Telegraph, Tokio—

Table showing the progress of postal service during the last ten years.

Table showing the progress of the telegraph service during the last ten years. Table showing the progress of the telephone service during the last ten years.

Table showing the progress of the postal money order business during the last ten years.

Table showing the progress of the post office saving bank business during the last ten years.

Map of the telegraph and telephone lines.

Map of the postal routes.

Postal routes map.

Postal route atlas.

Table showing the postage stamps in use at present.

Table of the postal cards and envelopes in use at present.

Table of the pass books and forms for stamp deposit used at present in the post office saving bank business.

Models of postman and mail carriers' articles used for carrying mails.

Pictures of post offices and their interior.

2. Imperial Railway Bureau, To-

Railway map of Japan.

The statistics of railways in Japan.

Chart of passenger and freight services of railways in Japan. The growth of the Japanese railways.

GROUP 75.

Material and Equipment Used in the Mercantile Marine.

1. Hasegawa, Kiyosaburo, Tokio-

Lamps for the use of ships. Safety lamps.

2. Imperial Mercantile Marine Bureau, Tokio—

Chart showing the principal steamship lines subsidized by the Imperial Japanese Government.

Chart of the tonnage of the mercantile marine in Japan at every third year from 1872 to 1902.

Chart showing the station of lighthouses, etc.

Diagram of Taisei Maru, new training ship of the Japanese Government Nautical College. Folding screen, with photographs of lighthouses; the Imperial Nautical College, and the comparative figures representing the progress of the holders of the certificates of competency for masters, mates and engineers of the mercantile marine in Japan.

Model of the Midzunokojima lighthouse.

History of marine transportation.

3. Nippon Yusen Kwaisha (Japan Mail Steamship Co.), Tokio—

Table of tonnage of the company's steamships.

Table of the extended knots of the periodical steamships. Models of the company's steam-

ships.

Tablets of the navigation routes.

Tablets of the navigation routes.

Maps.

Reception room.

This room has been fitted up according to designs prepared by Mr. Jimbei Kawashima, artist to the Imperial household. The fabrics used are from his looms in Kyoto, and the carvings, lacquers, castings, etc., have been executed by the best artificers in each line under the superintendence of Mr. Kawashima.

The highest style of Japanese architecture is here combined with European forms.

There are three styles in Japanese architecture, corresponding with the three kinds of script, the severe, the ornate and the current, each of which has numerous modifications. In this building the fashion adopted is not in strict accord with the severe style, but is rather a combination of the ornate and the current among the severe style, care being taken that the ensemble shall be larmonious. As to the shape of the room, the only point to be observed is that the four corners are rounded in order that dust may not accumulate. It is in the decoration that special features present themselves.

The whole conception is based on representations of the chrysanthemum and catalpa, with which are interspersed pictures of plants, flowers, birds, insects, etc., as painted by Japan's great artist, Jakuchyu, and the composition aims at harmony of color and congruity of motives.

In the frame-work of the ceiling there is not a single timber that passes all through from end to end. The whole is made up of small timbers put together in different ways, yet so compactly and skillfully that the effect produced is as of single long pieces. In fact, the work is so deftly done that in point of solidity it can compare with an arch formed of stone or brick.

The whole surface is divided into thirty hexagonal coffers, each framing a picture of numerous flowers embroidered on silk from designs by Jakuchyu.

The original of these pictures are from a famous album of flowers preserved among the heirlooms of a temple in Kyoto. To reproduce such designs in embroidery so that not a touch of the artist's brush or a shade of his colors shall be lost in the copy, is the pride of Japanese embroiderers, and constitutes a feat that has deservedly won universal applause.

The frames that divide the ceiling into hexagons are made of white cedar covered with aventurine lacquer; the so-called Nashiji, or "pear-skin ground," which is the most récherché of its kind in Japan. It is used here with the idea that its glitter suggests a host of stars sparkling overhead. The joints of the frames are tied with metal caps on which figures of chrysanthemums are chiseled.

The Cornice.—The top of the wall is covered with embroidery, the design being an arabesque of chrysanthemums on a gold ground, after a fashion adopted for decorative purpose at the Imperial Court.

The Upper Compartments of the walls are occupied by gilded fret work of thinly cut wood.

The Wall is covered with silk damask, having a design of chrysanthemums and catalpas on a dull gold ground.

The Cousoles at the corner are made of camphor wood with carved chrysanthemum leaves, suggesting the presence of the plants.

The Shafts and Tie-Beams.—The shafts and the horizontal tie-beams are made of catalpa wood, the joints being gilt, and carrying a

decorative design of vine-pattern (*lycopodium clavatum*). These vines are emblems of purity and cleanliness founded on a traditional belief that in early days before the dawn of the Empire of Japan a goddess entwined herself with these leaves, and played a dance to amuse a goddess in the sovereign.

- 4. Kamiya, Kimbci, Osaka— Life buoy, life belt.
- 5. Kinugasa, Koshichi, Osaka— Life buoy, life belt.
- 6. Japanese Society for Saving Life and Property from Shipwrecks, Tokio—

Diagram of the organization of the society.

Chart showing the effect of works of the society.

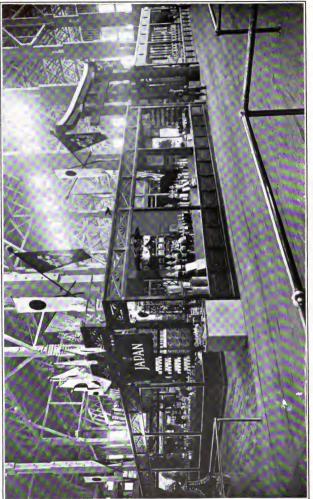
Map of the situation of life saving stations. Osaka Chamber of Commerce,
 Osaka—

The exhibition of the Osaka Chamber of Commerce consists of the following three groups of articles:

First—A miniature topographical representation of the Empire of Japan, correct and complete to the minutest details, showing the cities, towns, valleys, mountains, seaports, harbors, docks and lighthouses, and railroad, telegraph and telephone lines of Japan, as well as her routes of coasting trade, and to the neighboring countries.

Second—An elaborately embroidered map of the world, showing the steamship routes between foreign countries and the Empire of Japan.

Third—Framed photographs of 174 views in Japan.



JAPANESE SECTION-PALACE OF AGRICULTURE.

CHAPTER VIII.

DEPARTMENT OF AGRICULTURE.

Introductory Remarks.

Except in the case of official exhibits, our exhibits in this department were presented by the worthiest agricultural producers by the appointment of the Commission. The exhibits are limited to those articles which have special relation to the foreign trade of Japan.

General Remarks.—As the natural result of the peculiar geographical position of Japan, our system of agriculture presents diverse features according to places, and the natural tendency to diversity was further enhanced by the division of the country during the pre-Restoration days into a large number of practically independent communities. The consequence is that while in some districts sericulture is predominant, in others tea is the most important product while still others have sugar or other products as the staple farm produce. Stock farming is as yet comparatively backward, though the rearing of live stock for tillage or draught work is carried on to no small extent in some districts. Generally speaking, our farming is of intensive cultivation carried on in a small scale.

Classification of Arable Land.—The gross area of our arable land is 6,120,519 cho, which can be divided as follows, according to uses:

	(Cho.)
Wet fields	2,748,575
Upland fields, including	2,296,698
Mulberry fields	222,731
Tea plantations	31,889
Plains and pastures	1,075,246

The whole area of the arable land of Japan is only 15.7 per cent of the whole area of the Empire (exclusive of Formosa). On the other hand, the area of wet and upland fields which amounts to 5,045.2, 3 cho corresponds to only 12.9 per cent of the whole country. The comparative smallness of arable land is solely due to the hilly nature of our country.

Character of Arable Land.—The cultivation of rice being the principal item in the work of our farmers, the greater part of the arable land consists of rice fields which often occupy places situated in low and wet places and not quite suited for other crops. Of these rice fields 30 per cent admits of raising a second crop after the harvesting of

the rice. Upland fields are to be found on the other hand in elevated places where the drainage is good. In districts which are very densely populated or where special agricultural products are to be raised, even the slopes of the hills are utilized for upland farming.

Irrigation and Drainage.—Irrigation and drainage being indispensable for the cultivation of rice, provisions for facilitating them have been made since ancient times. The water used for irrigation is either led from rivers or procured by storing rain-water in reservoirs. The usual mode of irrigation for rice fields consists in leading the water into the said fields till it has accumulated there in a sheet suitable in depth and volume. The farm is therefore made very level and is encircled by boundary walls 30 to 35 centimetres in height. While the water is led into the farm from an elevation, it is made at the same time to flow out by an outlet provided at the other end of the farm. The other crops receiving irrigation are generally cotton, indigo and sugar cane, and the irrigation for them consists in leading water into the spaces between the ridges, and causing it to remain there until it soaks through.

Some Important Arrangements.—Of the improved arrangements of farming, those that are generally carried out are the readjustment of farm boundaries, and the improvement of the drainage, irrigation, surface coating of the soil, etc.

Mode of Utilization of Arable Land.—Arable land is utilized to the greatest extent as rice fields, next to which come upland farms, including tea plantations and mulberry fields. Pastures are very scarce, and are owned by the Government for experimental purposes and by a limited number of stock farmers.

Though the utilization of land as rice fields is so universal, these fields are, however, far from being utilized as they ought to be, to the utmost extent, chiefly owing to the fact that they are not so largely used for raising the second crop of the year. It is only in Formosa, Okinawa and some parts of Skikoku, where the temperature is higher than in other parts of the country, that two crops are raised in the rice fields. In most other places, the low temperature of the soil, owing to the presence of too much moisture, obliges the farmers to content themselves with the cultivation of rice alone. Still, owing to the improvements effected, the area of two-crop land is gradually increasing, as shown below:

in below.		Per cent. of
	(Cho.)	rice farm.
One crop fields	1.985,513	71
Two crop fields	755.083	20

The second crop raised after the cultivation of rice is generally mugi, rape, or genge, Japanese clover.

Banking Facilities for Farmers.—The Japan Hypothec Bank (Kangyo Ginko), the Local Hypothec Banks (Noko Ginko), the system of Credit Guilds, and the Colonial Bank (Takushoku Ginko), have all been created with the express object of providing banking facilities for our farmers.

Improvement of Agriculture,—In order to improve methods of farming, and to do away with various drawbacks with which our agriculture has been handicapped, the Government has inaugurated many agricultural institutions of varied nature, which have contributed greatly to the promotion of our agricultural industries. The following are among the most important of such institutions:

- 1. State and Local Experimental Station, the work of which comprises original researches, practical application of agricultural theories, model farming, etc.
- 2. Local Agricultural Training Schools for the purpose of imparting to farmers elementary knowledge of the science of agriculture, surveying, meteorology, physics, chemistry, veterinary science, horseshoeing, etc.
 - 3. State and Local Sericultural Training Schools.
 - 4. State Silk Conditioning House.
 - 5. Experimental Tea Farm and Curing House.
 - 6. Cattle and Fowl Epidemic Laboratory.
 - 7. State Cattle-Breeding Pastures.
 - 8. State Horse Pastures and Studs.
 - 9. Agricultural Societies.

Agricultural Products.—The following several tables show the growth of agricultural products.

COMPARATIVE TABLE OF YEARLY ACREAGE OF STAPLE FOOD STUFFS. (Fractions below decimal represents lan in this and other tables).

	1887.	1892.	1897.	1902.
	(Cho.)	(Cho.)	(Cho.)	(Cho.)
Ordinary rice	2,391,912.6	2,440,311.1	2,457,682.1	2,499,337.8
"Mochi" rice	215,701.1	268,294.6	267,472.0	263,864.2
Upland rice	29,571.1	46,496.2	62,027.2	84,193.0
Barley	625,777.4	635,266.6	653,266.6	645,307.8
Wheat	390,460.6	434,251.1	458,239.2	484,176.8
Rye	575,104.9	649,855.3	651,448.5	675,453.9
Beans	466,315.2	443,442.3	435,604.8	466,149.1
Red beans			109,280.7	129,290.9

	1887. (Cho.)	1892. (Cho.)	1897. (Cho.)	1902. (Cho.)
Millet	243,407.1	239,470.4	250,387.7	226,239.8
Sorghum	27,311.3	27,338.5	27,674.9	54.536.6
Italian millet	87,167.3	90,528.6	74,567.6	70,510.7
Buckwheat	158,409.9	161,879.9	174,138.2	165,750.2
Sweet potatoes	221,520.4	243.180.1	259,166.7	276,970.6
Potatoes	16,493.2	21,961.5	28,996.0	42,139.7

II. STAPLE PRODUCTS FOR SPECIAL USE.

	1887.	1892.	1897.	1902.
Cotton	98,478.9	71,431.6	44,444.0	20,700.1
Hemp	14.840.4	18,972.5	22,349.7	16,891.1
Indigo leaves	50,257.4	44.049.5	50.712.3	37.193.3
Tobacco leaves	21,803.5	29,059.0	31,477.5	23.946.3
Rape	167,295.1	171,795.0	154,167.0	157,045.1

It will be seen from the foregoing tables that the area of cultivation of the staples, is showing, on the whole, a satisfactory increase. Especially is this the case with beans, sweet potatoes and potatoes among the staple food stuffs, and hennp and tobacco among the staples for special use. The striking exception is the decrease in the area of the cotton plantations in consequence of the recent large import of foreign cotton. Our sugar industry has also suffered somewhat from foreign competition, but it has lately begun to recover its former prosperity, especially since our annexation of Formosa.

Again, except for some staples of less importance, the yield from the same area has become increased, thanks to the better methods that have of late obtained in farming, as:

(1). COMPARATIVE YIELD OF STAPLE FOOD STUFFS PER TAN.

1887.	1892.	1897.	1902.
(Koku.)	(Koku.)	(Koku.)	(Koku.)
Ordinary rice	1.526	1.209	1.328
"Mochi" rice	1.410	1.076	1.190
Upland rice	0.781	0.706	0.721
Barley	1.042	1.255	1.262
Wheat	0.708	0.832	0.817
Rye	0.932	0.946	0.936
Soja beaus 0.698	0.701	0.712	673
Red beans		0.566	548
Millet 1.058	1.260	0.957	885
Italian millet 1.265	1.250	1.081	805
Sorghum 1.005	1.022	0.941	830
Buckwheat 0.705	0.714	0.569	575
Sweet potato (kwamme) 253	234	256	257
Potato (kwamme): 172	184	202	128

(2). COMPARATIVE YIELD OF STAPLES FOR SPECIAL USE PER TAN.

	1887. (Kwamme.)	1892. (Kwamme.)	1897. (Kwamme.)	1902. (Kwamme.)
Cotton	. 23	18	16	16
Hemp	. 16	1.4	16	16
Indigo leaves	. 31	35	38	34
Tobacco leaves	. 27	26	28	35
Rape (koku)	. 0.682	0.598	0.656	0.707

(3). Comparative Table of Aggregate Output of Food-Stuffs.

	1887.	1892.	1897.	1902.
	(Koku.)	(Koku.)	(Koku.)	(Koku.)
Ordinary rice	36,675,775	37,276,606	29,722,736	33,201,556
Mochi rice	3,100,153	3,789,712	2,878,944	3,138,868
Upland rice	223,271	363,259	437,613	606,667
Total	39,999,199	41,429,676	33,039,293	36,947,091
Barley mugi	7.101,643	6,811,899	8,028,698	8,146,047
Wheat mugi	3.041,740	3,078,832	3,811,000	3.954.497
Rye mugi	5,678,661	6,165,792	6,165,792	6,325,082
Total	15,822,044	15,951,146	1,800,973	18,425,626
Soja beans	3,253,790	3,110,665	3,110,973	3,136,909
Red beans			618,804	708,712
Millet	2,574,850	3,016,678	2,395,158	2,003,317
Sorghum	274,562	278,259	260,414	286,734
Italian millet	1,102,607	1,131,570	806,274	567,299
Buckwheat	1,117,041	1,156,261	990,195	948,886
Sweet potatoes (kwam.)5	61,407,587	568,371,606	662,391,590	712,126,037
Potatoes (kwam.)	28,382,572	40,491,431	58,528,287	53,832,873

(4). COMPARATIVE TABLE OF AGGREGATE OUTPUT OF SPECIAL STAPLE CROPS.

	1887.	1892.	1897.	1902.
Cotton (kwamme)	22,388,590	12,584,822	7,304,253	3,322,047
Hemp (kwamme)	2,396,856	2,745,802	3,569,159	2,687,594
Indigo-leaf (kwamme)	15,424,412	15,447,822	19,415,593	12,495,151
Tobacco-leaf (kwamme).	5.987,359	7,643.203	8,871,370	8,349.679
Rape (kolu)	1,143,035	1,026,572	1,011,004	1,110,446

In inquiring into the acreage of mulberry and tea fields which are vitally related to our two export staples, silk and tea, that of the latter, in contrast to that of the former, shows a striking falling off. One consoling fact is that the output of tea shows an increase, due, principally, to the improved mode of curing.

TABLE SHOWING THE YEARLY AVERAGE OF MULBERRY AND TEA FIELDS.

	Mulb	Mulberry. Te		a.	
Year.	(Cho.)	(Tan.)	(Cho.)	(Tan.)	
1892	. 231,437.	7	60,699.	7	
1897	. 298,203.	9	58,982.	1	
1002	. 312,145.	8	49,046.	I	

TABLE SHOWING THE YEARLY OUTPUT OF COCOONS AND TEA.

	Cocoons.	Tea.
Year.	(Koku.)	(Kwamme.)
1887	1,219,060	7,011,221
1892	1,480.705	7,211,865
1897	2,121,944	8,471,956
1902	2,549,224	6.783,428

Fruit culture and gardening have made a striking advance recently.

Live stock do not yet show any marked development in number, but there has been a great improvement in their quality. The measures for improving both the quality of the live stock and increasing their number that are now being carried on, will not fail to bear results in the near future. Dairy business is an industry of only recent growth, but its result is entirely satisfactory.

Below is shown the number of cattle and horses during the last twenty years:

Year.	Cattle.	Horses.
1887	. 1,020,509	1,537,606
1892	. 1.094.797	1,554,667
1897	. 1,214,159	1,592,871
1002	. 1,275,582	1,515,573

The gross value of the staple agricultural products as calculated on the recent market price is as follows:

Yen.

Rice	445,439,087
Mugi	124,064,274
Beans	35,952,282
Others	153,872,649
Straw	86,982,360
Cocoons	93,618,991
Silkworm Eggs	3,844,126
Mulberry twigs and Silkworm litters	7,953.103
Cured Tea	9,037,545
Live Stock (cattle, horses, sheep, swine)	4,953,533
Slaughtered beasts	. 12,540,394
Cattle and Horses killed by disease	256,831
Dairy Products	4.128,017
Staple Manure	
Poultry and Eggs	17,281,419
Total	1 022 587 220

The chief items of agricultural products for export and the amount thereof are given below:

		1897	1898	1899	1900	1901
Rice	{ picul. yen	1,294,196 6,141,218		2,178,837 10,282,012	633,908 3,576,569	
Raw Silk	{ kin yen	6,919,861 55,630,460	4,837,329 42,047,411	5,946,911 62,627,721	4,630,903 44,657,029	8,697,706 74,667,331
Noshi and waste silk	{ ::	4,349,962 3,019,973	4,091,769 2,655,931	4,388,217 4,074,086	3,900,161 4,161,318	4,789,287 4,468,769
Green tea	{ ::	26,674,979 7,441,952	25,845.092 7,862,492	27,998,589 7,699,625	2,261,895 7,998,589	26,651,839 7,819,498
Other tea	{ ::	5,957,704 418,508		6,733,055 799,158	5,9 7 8,252 931,182	6,596,632 1,034,829
Matting	yen	3,232,738	3,938,450	3,717,489	3,310,042	5,431,514
Lily bulbs	{ No. yen	5,015,745 149,906	5,100,548 128,820	6,083,462 258,564	7,048,678 257,919	8,979,741 266,178
Pea nuts	{ ::	1,661,253 64,114		3,298,185 144,988	5,305,195 240,517	8,817,442 404,937
Ginseng	{ kin yen	368,730 484,227		402,221 476,868	402,914 407,671	419,328 452,924
Mint	{ ::	57,604 180,710		76,210 268,547	51,321 228,472	120,681 545,288
Straw braids	$\begin{cases} No, \\ yen \end{cases}$	6,760,384 3,181,915		7,134,655 2,770,178	8,802,039 4,025,159	6,974,457 2,986,836
Wood wax	$\begin{cases} kin \\ yen \end{cases}$	4,205,843 730,576	609,760	4,569,613 642,219	3,702,087 561,435	4,049,317 610,371
Cotton	{ ::	835,152 234,380			1,009,228 323,920	

The export of minor items worth mentioning in 1901 was as follows:

	Kin.	Yen.
Pepper	953,026	126,085
Oranges	3,689,355	129,214
Sweet Potatoes	9,408,026	203,356
Vegetables		284,339
Plants and Bulbs		105,801
Seeds		75,687
Hechima	3,209,168	112,924
Ginger		130,972
Feather	385,656	92,303

Subjoined is the list of the principal items of agricultural products coming into Japan:

coming into Japan.					
	1897	1898	1899	1900	1901
Rice { picul yen	21,528,429	48,219,810	1,650,592 5,960,166	9,011,536	311,938 2,878,958
Flour	23,415,021	38,854,445	29,001,104	84,299,342	62,972,707
	1,156,569	2,022,413	1,370,857	3,882,517	2,873,302
Sugar	3,207,950	4,369,046	2,731,817	4,045,785	4,928,075
	19,822,775	28,439,295	17,516,039	36,606,528	33,493,367
Beans { picul yen	2,349,376	2,406,507	308,786	1,707,742	1,938,474
	5,889,616	7,101,103	8,822,111	4,817,767	5,328,136

Malt $\begin{cases} kin \\ yeu \end{cases}$	2, 324, 321 221, 535	3,042,476 293,510	4,264,683 468,619	5.642,531 619,220	6,586,442 765,634
Raw cotton $\begin{cases} picul \\ yen \end{cases}$	2,298,643 43,620,215	2,453.586 45.744.371		2,608,084 59,471,629	
Cocoons $\begin{cases} kin \\ yen \end{cases}$	713.929 334.416	458,617 212,124	807,762 642,223	598,999 618,612	
Wild silk cocoons. {	6,600 11,370	15.760 37.872	151,850 375,189	148,237 351,359	213.081 433,184
Hemp	8,490,567 654,791	7,232,849 590,517	1,245,049	14,514,147	12,965,189
Oil cake $\begin{cases} picul \\ yen \end{cases}$	1,704,471	2,101,410 4,614.967	2,795,504 9,791,813	2,280,687 5,696,453	3.477.704 8,109,237
Eggs $\left\{ \begin{array}{ll} yen \\ kin \end{array} \right.$	337.769	492.553	826,960	1,243,065	1,298,611
Indigo	1,196,134 1,538,022	1,806,276 2,270,815	1,768,729 2,903,829	1,851,673 3,902,559	1,243,790 2,665,043
Wool	2,712,695 1,062,398		7.746,509 4.324.427	4,514, <i>2</i> 98 3,919,693	4.952,196 3,129,382
Condensed milk $\begin{cases} doz. \\ yen \end{cases}$	93,784 201, <i>2</i> 04			300,227 663,681	279.538 646,308
Hides and leathers $\begin{cases} kin \\ yen \end{cases}$	1.974.510 346.394			2,696,663 656,643	3,344.062 786,609

Minor items worth mentioning in the year 1901 were as follows:

	Kin.	Yen.
Butter	181,278	119,339
Cheese	70,593	29,206
Coffee	142,175	45,292
Tea	117,518	29,053
Cotton Seeds4	2,323.844	571,720
Sesame Seeds	5,699,927	284.784
Grains and Seeds		460,742
Leaf Tobacco	76,361	30,272
Tallow	857,458	108,696
Hair, Bristles, etc	191,916	260,024
Wheat	8,587,462	272,868

APPENDIX.

Formosa.

In the Palace of Agriculture stands eminently distinct from all others of the kind a typically Formosan gateway, painted in primary colors. This structure was one of a pair of the old official side-gates of the Government buildings in Tailhoku, Formosa, erected by the Chinese 25 years ago, after the style of ancient Chinese architecture, and is now one of the historical remains of Formosa. The present Governor-General, in expression of his appreciation of the Exposition, willingly spared this gate to be removed from its place to adorn the entrance to the Formosa section, and its material was brought thousands

FORMOSAN EXHIBITS-PALACE OF AGRICULTURE.

of miles over the Pacific. To both sides of the gate stand two Formosan pagodas, also of Chinese style. As will be seen from the beautiful silk sign hanging on the gate, with the embroidered figures, "Formosa, Japan," this section is exclusively devoted to exhibits from Formosa, which, together with its dependencies, was ceded to Japan by China in 1895, as a result of the late Japan-China war.

Formosa lies to the southwest of the mainland of Japan, directly to the north of the Philippines, divided by the Boshi Channel, and to the west of the Chinese mainland, from which it is separated by the Formosa Channel. It covers an area of 13,417 square miles, and has a population of 2,925,072, which consists of 2,882,948 natives and 42,124 Japanese, excluding Japanese troops stationed on the island. The native population may be divided into two elements, the aboriginal Formosans and the Formosan Chinese, who are immigrants from South China, and their descendants. The number of aboriginal Formosans is not exactly known, but in all probability not more than 100,000.

With every natural advantage, Formosa is evidently destined to be one of the richest agricultural countries on earth. In spite of its location in the tropical zone, the climate is delightful. and humidity are favorable for the growth of many varieties of the most valuable products. The northern part of the island, with its numerous hills and mountains, is most noted for the production of the famous Formosan Oolong tea; the interior mountainous portion covered with thickest virgin forests, where the aboriginal natives dwell, is famous for the production of camphor, while the southern part is remarkably suited to the cultivation of sugar cane. Fruits, fiber and other valuable plants abound in the island and can be cultivated to the best advantage. Various kinds of oranges, banana, pineapple and lungan are the principal fruit products of the island, while China grass, jute, pineapple and pandanus are among the chief fiber products. On the line of economical plants we find peanuts, sesame, tobacco, indigo, various kinds of beans, sweet potatoes and turmeric. Rice is the principal agricultural product, though its export is now almost exclusively confined to Asiatic ports. Varieties of fine hard woods are also abundant in the interior forest land and promise a great future. Bamboo also thrives on the island and is utilized for various purposes.

Mineral and marine products are represented by gold, sulphur, coal, and various kinds of fish, though not yet fully developed. The Formosan Government in participating in the Exposition have decided to send only those products that are either already being exported to the United States, or those which will appeal to demands in the future, excluding those that have no direct relation to the foreign trade of the island. The Formosan exhibition is, therefore, limited to a few items.

Exhibits.

GROUP 80. Fertilizers.

1. Osaka Alkali Joint Stock Co., Osaka—

Super-phosphates. Nitrogen fertilizer. Complete fertilizer.

GROUP 81. Tobacco.

 Bureau of Tobacco Monopoly, Department of Finance, Tokio—

Leaf tobacco.

Table of production of tobacco.

 Iwaya, Matsuhei, Tokio— Cigarettes.

GROUP 83.

Theory of Agriculture and Agricultural Statistics.

1. Agricultural Experimental Station, Tokio—

Best varieties of rice plants, with husked, non-husked and cleaned rice.

Specimens of noxious insects of

Samples of injured rice.

Samples of preserved fruits: Apples and persimmons, pears, oranges, loquats, myrica, etc.

Diagram showing development of noxious insects and the method of clearing them. Maps showing the localities of scale insects.

Maps showing the localities of rice insects.

Maps showing the localities of the damage of rice crop by insects.

Monograph and photos of the Jose scale insects.

Pictures of damaged rice.

Photos of fruits and vegetables.

 Bureau of Agriculture, Department of Agriculture and Commerce, Tokio—

Map of the production of rice in Fu'and Ken.

Diagram of cultivable land, total land area, and the land under cultivation.

Map of the production of tea in Fu and Ken.

Map showing mulberry tree in Fu and Ken.

Map showing the production of raw silk.

Comparative diagram of the export silk.

Diagram showing the destination of exported silk, with its value.

Diagram of imported and exported agriculture products.

Map showing the distribution of the state and provincial agricultural institutions. 3. Formosau Government, Taiho-ku-

Photographs of tea manufactur-

4. Government Scricultural Institute, Tokio-

Samples of cocoons and silk. Preparation and packing of raw

silk for export. Samples of the silk staffs made

of different kinds of silk (installed in Japanese Section, Palace of Manufacture). Silkworm raising and ruling of

Development of silkworm.

Samples and model development of silkworms.

Model of filature works (installed in Japanese Section. Palace of Manufactures).

5. Government TcaExperimental Station, Tokio-Samples of tea.

Photographs of tea plantation and factories

6. Japan Raw Silk Association. Tokyo-

List of the famous raw silk producers in Japan.

7. Silk Conditioning House, Yokohama-Photographs.

Survey of Mineral Fertilizers, Tokio-

Double superphosphate of cal-Precipitated calcium phosphate. Phosphate rock.

GROUP 84.

Vegetable Food Products and Apricultural Seeds.

Ang-hak-gian, Shokwa, For-Peanuts.

2. Asomachi Agricultural Socicty, Ibaraki-ken-Peanuts, erecting variety.

3. Bocho Rice Dealers' Association, Yamaguchi-ken-Rice "Kokuratsu." Rice "Miyako."

Chhao-teng-tong, Shokwa, Formosa— Peanuts.

Rice "Omatsu."

5. Chhao-thak, Toroku. Formosa--Large peanut.

6. Chibaken Agricultural Society, Chiba-ken-Paddy rice, "Araki."

7. Chiun-che, Taihoku. Formosa—

Peanuts, large and small grained.

8. Chiu-pek-ui-po. Shinchi-ku. Formosa-Peanuts.

9. Fukuokaken Rice Exporters' Association, Fukuoka-keu-Uncleaned rice.

10. Fukuokaken Agricultural Society, Fukuoka-ken-Paddy rice.

Go-kun-san, Taiho-ku, Formosa-Peanuts.

12. Go-ango-sin, Taiho-ku, Formosa—

Peanut.

- Higo Rice Exporters' Association, Kumamoto-ken—
 "Higo" rice.
- 14. Ho-su-chu, Shinchi-ku, Formosa— Peanut.
- Iap-hui-chheng, Shokwa, Formosa—

Peanut.

- 16. Ikenaga, Shinbei, Osaka—
 Rape oil.
 Shirashibori rape oil.
 Toyu oil (industrial oil).
 Eno oil (oil of perilla ocimoides).
- Ito, Tamijiuro, Kagoshimaken—
 Peanut, small grained.
- Iun-ong-chui, Toro-ku, Formosa—

Large peanut.

19. Japan Rice Cleaning Mill, Ltd., Kobe—

Cleaned rice, "first quality." Cleaned rice, "second quality." Crushed rice.

20. Kanagawa-ken Agricultural Society—

Peanut, large and small.

- Kashima-gun Agriculture Society—
 Peanut, erect variety.
- Kho-kui, Toro-ku, Formosa— Peanut, creeping.

23. Kiushiu Oil Co., Fukuokaken— Rape oil

Rape oii. Shirashibori rape oil.

24. Koch-ti-ko, Toro-ku, Formosa—

Large peanut.

25. Ko-sc-liong, Shinchi-ku, Formosa—

Peanut.

- 26. Kotakamura Agricultural Society—
 Peanut, erect.
 - Peanut, creeping. Peanut, improved.
- 27. Liau-sin, Taiho-ku, Formosa— Peanut.

28. Lim-eng-hi, Byoritsu, Formosa— Peanut

- 29. Lo-song-bun, Taiho-ku, Formosa— Peanut
- 30. Mizuno, Yahei, Osaka— Rape oil, refined. Shirashibori rape oil.
- 31. Nagashima, Jiroyemon, Yokohama—

Peanut, large grained. Peanut, small grained.

32. Namekatamura Agricultural Society, Ibaraki-ken— Peanut, erect.

Peanut, creeping.

33. Namekata-gun Agricultural Society, Ibaraki-ken—
Peanut, erect variety.

Peanut, creeping variety.

- Ng-sim-pu, Shokwa, Formosa— Peanut.
- Ng-te, Shinchi-ku, Formosa— Peanut.
- 36. Nozawa & Co., Kobe— Peanut, small grained.
- Okamura, Hidetaro, Osaka—
 Eno oil, Anchor brand, boiled, A.
 Linseed oil, Anchor brand, boiled, B.

Eno oil (of perilla ocimoides), boiled, C.

Linseed oil, Anchor brand, boiled, D.

Fish oil, Anchor brand, boiled.

- Okuda, Heihachi, Gifu-ken— Rape oil.
 Shirashibori oil.
- 39. Omi Oil Co., Shiga-ken— Rape oil. Shirashibori oil.
- 40. Omi Rice Dealers' Association, Shiga-ken— Uncleaned "Watashibune." Uncleaned "Omachi." Uncleaned "Shiratama."
- 41. Ota, Seizo, Fukuoka-ken— Shirashibori rape oil. Rape oil.
- 42. Owada, Shoshichi, Fukui-ken—
 Rape oil.
 Shirashibori rape oil.
 Linseed oil.
 Linseed, boiled.
 Eno oil (of perilla ocimoides).

- Owari Vegetable Co.— Dried water lily.
 Dried leppa.
 Dried carrot.
- 44. Settsu Oil Co., Osaka— Rape oil. Shirashibori oil.

Peanut, small grained.

- Shizonka-ken Red Pepper & Peanut Exhibitors Associaation, Shizuoka-ken— Peanut, large grained.
- 46. Taga-gun Agriculture Socicty, Ibaraki-ken— Peanut.
- 47. Tamagawamura Agriculture
 Society—
 Peanut, erect grained.

Peanut, creeping grained.

- 48. To-tai-teng, Byoritsu, Formosa— Peanut.
- 49. Uycda, Tokumatsu (Idzutoku & Co.), Kobe— Peanut.

GROUP 87.

Farinaceous Products and Their Derivatives.

- Fukuoka, Zenkichi, Osaka Branch, Osaka—
 Komugi barley sugar.
- Furukawa, Tomozo, Niigataken—

Liquid barley sugar.

 Higo Chosen Barley Sugar Producers' Association, Kumamoto-ken—

Chosen viscores barley sugar.

4. Hokwa & Co., Niigata-ken-Liquid barley sugar.

Horiye, Dozo, Osaka—

- Ishi barley sugar. Hygienic barley sugar. Budo barley sugar. Hygienic nutritious barley sugar.
- 6. Hoshi, Rinpei, Niigata-ken-Liquid barley sugar. Liquid barley sugar, with figs.
- 7. Idsumi Tetsukichi, Ibarakiken__ Rice frake. Domioji rice meal.
- Inouve. Ibaraki-Muraji. ken-Konnyaku meal.
- o. Ishibashi, Wahei, Tokio-Liquid barley sugar. Liquid barley sugar with raisins. Liquid barley sugar, "Okina ame "
- 10. Kato, Kenzo, Kioto-Liquid barley sugar, "Rannotsuvu."
- II. Kirin. Niigata-Asanojo. ken-Liquid barley sugar.
- 12. Kurokawa, Jutaro, Nara-ken_

Puerlaria starch.

- 13. Matsuda & Co., Kochi-kcn-Liquid barley sugar. "Tosuke-ame."
- 14. Morino, Tosuke, Nara-ken-Puerlaria starch.

- 15. Nagayama, Yasunosuke, Ibaraki-ken-
 - Konnyaku meal.
- Nakamura, Hideo, Yokoha-1110-Prepared barley sugar. Liquid barley sugar.
- Hygienic barley sugar. 17. Natsume, Rihei, Shizuokaken-

Millet sugar. "Okina barley sugar."

- Osaka Barley Sugar Producers' Ass'n, Osaka-"Okina" barley sugar.
- 19. Sodeyama, Mankichi, Niigatakcn-Hygienic barley sugar. "Tamafubuki." Barley sugar.
- 20. Takahashi, Denyemon, Niigata-ken-Millet sugar.
- Takahashi, Magoyemon, Niigataken-Millet sugar.

Millet sugar with fruit juice. Okina barley sugar, with fruit juice.

- 22. Takahashi, Otokichi; da Kunimatsu, and three others, Kioto-
 - Barley sugar.
- 23. Tanadi. Shobei. Shizuokaken-

Transparent barley sugar. Barley sugar with tea infusion. Okina barley sugar.

- 24. Terakedo, Jihei, Ibarakiken— Konnyaku meal.
- 25. Tsunchara, Sakichi, Okayama-ken—

Liquid barley sugar.

26. Waguraya & Co., Tokio— Mashed bean for sweetmeats. Mashed bean, first quality. Domioji rice meal. Fine rice meal.

 Washiko, Bussan, Goshikaisha, Ibarakiken—
 Konnyaku meal.

28. Yaga, Naokichi, Shizuokakcu-

Refined barley sugar. Liquid barley sugar with tea.

29. Yonczu, Tsuncjiro, Tokio— Liquid barley sugar. Hygienic barley sugar. Shippo barley sugar.

GROUP 88. Bread and Pastry.

- Imai, Scijiro, Kioto— Nodsukasa.
- 2. Japan Confectioners' Association, Kioto—

Preserved sweetmeats for export.

 Kobayashi, Rinnosuke, Osaka—

Millet ball "Awaokoshi."

- 4. Koto, Bungo, Fukuokakeu— Starch vermicelli,
- 5. Nakamura, Hideo, Yokohama—

Rice biscuits.

Confectioners' materials.

- Nishio, Tameji, Kioto—
 "Shogoin Yatsuhashi" (biscuit).
 "Shimonohashi" biscuits.
- 7. Noda, Tciju, Tokio— "Fusen-arare" bon-bon.
- 8. Osaka, Scika & Co., Osaka--Biscuits.

Combination biscuits.

Postor.

Jim.

Mixed.

Soda.

Biscuits in fancy box.

Tanuo, Scizo, Osaka—
 Millet ball.

GROUP 89.

Preserved Meat, Fish, Vegetables and Fruit.

1 Akiguu Agricultural Society, Kochiken—

Dried persimmon.

- Akimachi Agricultural Society, Kochiken—
 Dried persimmon.
- Choa-lai-seing, Kagi, Formo-sa—

Dried nepbelium longana.

4. Doimura Agricultural Society—

Dried persimmon.

- Formosa Sugar Manufacturing Co., Hosau, Formosa— Sugar.
- 6. Go-an, Yensuiko, Formosa— Dried nepbelium longana.
- 7. Go-khai-heng, Kagi, Formosa—

Dried nepbelium longana.

- 8. Hachiya Persimmon Dealers'
 Association, Gifu-ken—
 Dried persimmon.
- 9. Inokuchimura Agricultural Society, Kochi-ken— Dried persimmon.
- 10. Iokimura Agricultural Society, Kochi-ken— Dried persimmon.
- Kamitono, Masataro, Osaka— Narazuke.
- Kawakitamura Agricultura! Society, Kochi-ken— Dried persimmon.
- Khu-tiau-lien, Yensuiko, Formosa—
 Dried nepbelium longana.
- Kochiken Agricultural Society—
 Dried persimmon.
- Koch-iok-seng, Kagi, Formosa—
 Dried nepbelium longana.
- Koch-toan-lai, Yensuiko, Formosa—
 Sugar.
- Lian-gian, Kagi, Formosa— Dried nepbelium longana.
- 18. Lim-tiong-eng, Yensuiko, Formosa—
- Dried nepbelium longana.

 19. Lim-chin-bo, Kagi, For-
- mosa—
 Dried nepbelium longana.
- 20. Lo-keng-tan, Tainan, Formosa— Sugar.

- 21. Lo-lai, Yensniko, Formosa— Dried nepbelium longana.
- 22. Lo-seng, Yensniko, Formosa—

Dried nepbelium longana.

23. Lo-seng, Yensuiko, Formosa—

Dried nepbelium longana.

- 24. Masnda, Naozo, Kanagawaken— Ham.
- Nakakomagun Agriculturai Society, Yamanashi-ken—
 Dried persimmon.
- Nakazono, Masakata, Koshun, Formosa— Dried ginger.
- 27. Ng-him, Kagi, Formosa— Dried nepbelium longana.
- 28. Ng-soang, Kagi, Formosa— Dried nepbelium longana.
- 29. Nishibun Agricultural Society, Kochi-ken— Dried persimmon.
- 30. Nishimura, Jubei, Gifuken— Dried persimmon.
- 31. Okamura, Chotaro, Hosan, Formosa— Canned pineapples.

Nepbelium longana.

32. Ong-soat-long, Tainan, For-

Sugar.

- 33. Ota, Koichi, Yamanashiken— Dried persimmon.
- 34. Saito, Manpei, Kanagawaken— Ham.

- 35. So-hun-the, Ako, Formosa— Sugar.
- 36. Tan-hian, chhun, Yensuiko, Formosa— Dried nepbelium longana.
- 37. Tan-oing, Kagi, Formosa— Dried nepbelium longana.
- 38. Tan-keng-chho, Yensuiko, Formosa— Dried nepbelium longana.
- 39. Tan-tho, Kagi, Formosa— Dried nepbelium longana.
- Tan-tian-chin, Yensuiko, Formosa—

Dried nepbelium longana.

- Tsuchiya, Yushichi, Gifuken— Dried persimmon.
 Dried persimmon redessicated.
- 42. Umanonyemura Agriculture Society, Kochiken— Dried persimmon.
- 43. Yamada, Minosuke, Tokio— Fukushinzuke pickles.
- 44. Yamada, Tahei, Yamanashiken-

Dried persimmon.

45. Yamanashi Frnit Ass'n, Yamanashiken—
Dried persimmon,

GROUP 90.

Sugar and Confectionery—Condiments and Relishes.

- 1. Abe, Kahei, Niigataken— Shoyu.
- Abe, Yosohachi, Niigataken— Shoyu.

- Aichiken Hoigun Agriculture Society, Aichiken—
 Red pepper "Metaka."
 Red pepper "Takanotsume."
 Red pepper "Yatsubusa."
- 4. Aizawa, Hyosuke, Yamagata-

Raw peppermint oil. Raw menthol.

- Akowo Shoyu Brewery Co., Hyogo-ken—
 Shoyu.
- 6. Amagasaki Shoyu Brewery Ass'n, Hyogoken— Shovu.
- Ang-hu-sin, Taihoku, Formo-sa—
 Oolong tea.
- 8. Bok-keit-san, Taihoku, Formosa— Oolong tea.
- Be-sin-khiam, Taihoku, Formosa—
 Pouchong tea.
- Central Tea Union, Tokio:— Japan Tea Manufacturing Company.

pany,
Japan Tea Exporting Company.
Sekiyo Tea Company.
Enshimi Investment Company.
Knishn Tea Exporting Company.
Fnji & Company.
Shizuoka Tea Company.
Tokai Tea Trading Company.
Shimada Tea Company.
Makinohara Tea Company.

Okasa Tea Company. Fnjiye Tea Company.

Nakamura Tea Company.

Kioveki Tea Trade Association. Yamamura & Co. Kagimoto National Product Com-

pany.

Kioto Sagara-County Tea Traders' Association (Ito Kozaimon, Mori Yeisuke, Tomaki Kamekichi, Koyema Kanekichi, Mizoda Bunkichi.)

Brick Tea.

"Gvokuro" (choicest).

Green tea.

Black Tea.

11. Cheng-jong-hoe. Toshiyen, Formosa-

Oolong tea.

12. Cheng-liong-teng, Toshiyen, Formosa—

Oolong tea.

Chhi-piang-hu, Toshiyen, Formosa-

Oolong tea.

Chhoa-lip, Toshiyen, Formo-

Oolong tea.

Taihoku, 15. Chiam-beng-tek, Formosa-

Oolong tea.

16. Chiam-hok-san, Taihoku, Formosa-

Oolong tea.

Chiam-ki-siong. Taihoku. Formosa-

Oolong tea.

18. Chiu-bun-chhiang, Taihoku, Formosa-

Oolong tea.

19. Chinn-chheng, phiau, Taihoku. Formosa-

Oolong tea.

20. Chiun-ka-in, Taihoku, Formosa-

Oolong tea.

Chu-su-hun, Taihoku, For-22. mosa--

Oolong tea.

Formosan Government, Taihoku-

Tea.

24. Fukuoka, Kichijiro, Hyogoken-

Shoyu.

Fuknokashi Shoyu Brewers' Ass'n, Fukuokaken -

Shoyu.

Gifu Marusan & Co., Gifu-26. ken-

Tamari.

27. Go-bun-siu, Taihoku, Formosa--

Oolong tea.

Go-chi-hien, Taihoku, Aichiken-

Oolong tea.

Hattori. Heinosuke, Aichiken-

Tamari.

30. Hosono, Kitaroku, Niigataken-

Shoyu.

Sutejiro, Niigata-31. Hosono. ken-

Shoyu.

32. Jap-bun-chin, Taihoku, Formosa-

Oolong tea.

Jap-kim-tian, Taihoku, Formosa-

Oolong tea.

- 34. Idzawa, Chiubci, Hyogoken— Shoyu.
- 35. Idzumiyama Shoyu Brewery
 Ass'n, Aomoriken—
 Shoyu.
- 36. Idzuroku & Co., and Ito & Co., Kobe—

Dried ginger.

Jong-ki-lien, Taihoku, Formosa—
 Oolong tea.

38. Ito, Magozayemon, Aichiken— Tamari

39. In-hou-chheng, Taihoku, Formosa—

Oolong tea.

40. In-ki-siong, Taihoku, Formosa—

Oolong tea.

41. Iun-khien-chi, Taihoku, Formosa—

Oolong tea.

- 42. Kato, Rokuzo, Aichi-ken— Tamari.
- 43. Kato, Shobei, Aichi-ken-
- 44. Kawaguchi, Kichishiro, Hyogo-ken— Shoyu.
- 45. Kawamori, Matasaburo, Osaka— Shoyu,
- 46. Khu-kai-sek, Taihoku, Formosa— Pouchong tea.
- 47. Kida, Otoshichi, Osaka— Shoyu.

- 48. Kioto Confectioners' Association, Kioto—

 Confectionery (for ceremonial
 - Confectionery (for ceremonial use).
- 49. Kobayashi, Keisukc. Yokohama—

Menthol.

Peppermint oil.

50. Koch-chhung-ng. Taihoku,
Formosa—
Pouchong and Oolong tea.

51. Ko-chui-seng, Shinko, Formosa—

- Oolong tea.
 52. Ko-heng, Shinko, Formosa—
- Oolong tea.
 53. Ko-kim-kiet, Shinko. Formo-

sa— Oolong tea.

- 54. Ko-teng, Shinko, Formosa—Oolong tea.
- 55. Leng-chhun-lim. Taihoku, Formosa— Oolong tea.
- 56. Liau-kim-kiong, Taihoku, Formosa—

Oolong tea.

 Li-ban-ku, Taihoku, Formosa—
 Oolong tea.

- 58. Li-hui, Taihoku, Formosa— Oolong tea.
- Lim-liong-tck, Taihoku, Formosa—
 Oolong tea.
- 60. Lim-seng-hein, Taihoku, Formosa— Oolong tea.

61. Li-pek-chin, Taihoku, Formosa—

Oolong tea.

 62. Li-teng-liong, Taihoku, Formosa—
 Oolong tea.

- Masuda, Shinzaburo, Osaka— Shoyu.
- 64. Matsuhara, Heizo, Gifuken-Shoyu.
- Matsutani, Yaheiji, Osaka—
 Shoyu.
- 66. Mikawaya & Co., Aichiken-"Tamari."
- 67. Mikawa Shoyu Brewers' Co.,
 Aichiken—
 Shoyu.
- 68. Miki, Yahci, Hyogo-ken— Shoyu.
- 69. Minamine, Fukuzo, Osaka— Refined menthol. Peppermint oil.
- Miyeken Shoyu Brewers' Association, Miyeken—
 Shoyu.
- 71. Morita & Co., Aichiken— Shovu and "Tamari."
- 72. Nagao Kihei, Hyogoken— Shoyu.
- Nakahara, Nobuyuki, Hyogoken— Shoyu.
- Na-tiok-chai, Toshiyen, Formosa—
 Oolong tea.
- 75. Ng-beng-sim, Taihoku, Formosa— Oolong tea.

76. Ng-chheng-seng, Taihoku, Formosa—

Pouchong tea.

Nippou Shoyu Brewery Ass'n.
 Chibaken—
 Shoyu.

- 78. Nishiwaki, Gihei, Hyogoken— Shoyu.
- 79. Nobuga, Kisabei, Hyogoken— . Shoyu.
- 80. Nomura, Jiubei, Aichiken—
 "Tamari."
- 81. Nozawaya & Co., Kobe— Ginger.
- 82. Nozawaya & Co., Izutoku & Co., and Ito & Co., Kobe— Red pepper and photographs of
- its harvest and packing.

 83. Oda, Hikoghichiro, Fukuoka-

ken— Shoyu.

- 84. Ogai, Sentaro, Fukuokaken— Shoyu.
- Oguri, Hanyemon, Aichiken— "Tamari."
- Oguri, Saburo, Aichiken— Shoyu and tamari.
- 87. Oguri, Tomijiro, Aichiken— Shoyu.
- 88. Oita Shoyu Brewers' Ass'n,
 Oitaken—
 Shoyu.
- 89. Okawa, Ryonosuke, Yokahama— Menthol. Peppermint oil.

- 90. Ong-chheng-hun, Taihoku, Formosa— Pouchong tea.
- 91. Ong-hong-chheng, Taihoku, Formosa—

Pouchong tea.

- 92. Otsuka, Manjiro, Hyogoken— Shovu.
- 93. Otsuka, Mojiuro, Hyogoken— Shoyu.
- 94. Peh-chiet-soan, Taihoku, Formosa—

Pouchong tea.

- 95. Po-i-iam Taihoku, Formosa—
 - Oolong tea.
- Shizuoka Red Pepper and Peanuts Exhibitors' Ass'n, Shizuokaken—

Red pepper.

- 97. Shidzuoka Shoyu Brewers'
 Ass'n, Shizuoka-ken—
 Shoyu.
 - 98. Shimidzu, Zenzo, Niigataken— Shoyu.
- 99. Shindo, Kaichiro, Osaka— Shoyu.
- 100. Shinka, Tomitaro, Fukuokaken— Shoyu.
- 101. Shoji, Shingo, Hyogoken— Shoyu.
- 102. So-liong-leng, Taihoku, Formosa— Oolong tea.

- 103. So-sien-giok, Taihoku, Formosa—
 - Oolong tea.
- 104. Standard Ginger Works of Japan, Shizuokaken— Improved dried ginger with no
- ash.

 105. Suzuki, Zenroku, Aichi
 - ken— "Tamari."
- 106. Takoka, Riyemon Hyogoken— Shovu.
- Takeshima, Genso, Osaka—
 Shoyu.
- 108. Tamaya & Co., Aichiken—
 "Tamari."
- 109. Tanaka Toramatsu, Niigataken— Shoyu.
- 110. Tan-chu-seng, Taihoku, Formosa—

Pouchong tea. .

- 111. Tanagashima, Genbei, Osaka— Shoyu.
- 112. Tan-giok-lo, Taihoku, Formosa—
 - Pouchong tea.
- 113. Tan-heng-hong, Taihoku,
 Formosa—
 Colong tea

Oolong tea.

- 114. Tan-hui-soat, Taihoku, Formosa— Pouchong tea.
- 115. Tan-kai-seng, Taihoku, For-

Pouchong tea.

- 116. Tan-keng-ki, Shinko, Formosa— Oolong tea.
- 117. Tan-ki-ju, Taihoku, Formosa— Oolong tea.
- 118. Tan-kong-sut, Taihoku, Formosa— Pouchong tea.
- 119. Tan-lieu-hui, Shiuko, Formosa— Oolong tea.
- 120. Tau-lim-eng, Shinko, Formosa— Oolong tea.
- 121. Tan-siong-phian, Taihoku, Formosa— Pouchong tea.
- 122. Tan-sui-le, Taihoku, Formosa— . Oolong tea.
- 123. Tan-sni-seng, Taihoku, Formosa— Oolong tea.
- 124. Tan-tai-tin, Taihoku, Formosa— Pouchong tea.
- 125. Tan-tek-jioug, Taihoku, Formosa—Oolong tea.
- 126. Tan-thieu-lai, Taihoku, Formosa— Oolong tea.
- 127. Tatsuno Shoyu Brewery Co., Hyogoken— Shoyu.

- 128. Tea Dealers' Association, Taihoku, Formosa— Pouchong tea. Oolong tea.
- 129. Teng-peng-hui, Taihokn.
 Formosa—
 Oolong tea.
- 130. Tiang-teng-wong, Taihoku, Formosa— Oolong tea.
- 131. Tiu-nu-iong, Taihoku, Formosa—

Pouchong tea.

- 132. Tiun-chiam-khoc, Taihoku, Formosa— Pouchong tea.
- 133. Tinn-kien-seng, Shinko, Formosa—Oolong tea.
- 134. Totomi Ginger and Vegetable Sponge Producers' Association, Shiznokaken— Improved ginger without ash. Improved ginger with ash. Powdered ginger, prepared with no ash. Raw ginger with ash. Raw ginger without ash.
- 135. Toyoda, Kumajiro, Osakafu— Shoyu.
- 136. Tsubota, Asagoro, Hyogokcu— Shoyu.
- 137. Tsubota, Kiutaro, Hyogokeu— Shoyu.

- 138. Uyeda, Taminosuke, Hyogoken— Shovu.
- 139. Uyeki, Kyo, Osaka— Shoyu.
- 140. Wachi, Shigeyuki, Fukuokaken— Shoyu.
- 141. Wakaye, Rokubei, Osaka— Shoyu.
- 142. Watanabe, Shosaburo, Yamagataken— Peppermint oil. Menthol. Stick-formed menthol.
- 143. Yamamoto, Matsaburo, Osaka— Shoyu.
- 144. Yamauchi, Motohei, Aichiken— "Tamari."
- 145. Yamaguchi Shozo, Aichiken—
 "Tamari."
- 146. Yanagiwara, Goyemon, Gifuken—
 "Tamari."
- 147. Yazawa, Totaro, Yokahama— Menthol. Peppermint oil.
- 148. Yehara, Kinbei, Osaka—Shovu.
- 149. Yentaku, Kamejiro, Hyogoken— Shoyu.

- 150. Yesaki, Yoyemon, Aichiken— "Tamari" and shoyu.
- 151. Yoshida, Sakujiro, Fukuokaken— Shovu.
- 152. Yokoyama, Shozo, Hyogoken— Shovu.
- 153. Yoshikawa, Yonejiro, Yokohama—
 Red pepper.
 Menthol.

GROUP 91.

Waters.

- 1. Arima Mineral Water Co., Hyogoken—
 Arima mineral water.
 - 2. Kawakubo, Hisayuki, Hyogoken— Hirano mineral water.
- 3. Kujaku & Co., Kobe— Hirano mineral water.
- 4. Sugita, Ikkan, Kobe— Nunobiki Tansan water.
- 5. Uchida, Kozaburo, Kobe— Hirano mineral water.

GROUP 94.

Fermented Beverages.

- Fukuoka-ken Sake Brewery Ass'n, Fukuoka-ken— Sake (rice liquor).
- Hanaki, Jinyemon, Hyogoken—
 Sake.

- 3. Hirano Heibei, Hyogoken— Sake.
- 3A. Idzumi, Sensuke, Hyogoken— Sake
- 4. Ikegami, Mohei, Hyogoken— Sake.
- 5. Inaba, Jizaemon, Aichiken— Sake.
- 6. Ito, Shichiroye, Aichiken— Sake.
- Ito, Magoyemon, Aichiken—
 Sake.
- 8. Ito, Shinzo, Aichiken—Sake.
- Ishikawa, Hachiroji, Aichiken— Mirin liquor.
- Kano, Jiroyemon, Hyogoken—
 Sake.
- Katsube, Jiuyemon, Hyogoken—
 Sake.
- Konishi, Shinyemon, Hyogoken—
 Sake and mirin liquor.
- 13. Kugai & Co., Aichiken— Sake.
- 14. Mase, Manzo, Aichiken— Sake.
- 15. Mase, Shotaro, Aichi-ken— Sake.
- 16. Nagabe, Bunjiro, Hyogoken— Sake.

- 17. Nippon Beer Brewery Co., Tokio-fu—
 - Beer.
- 18. Noda, Rokuzaemon, Hyogoken—
 - Sake.
- 19. Oiwa, Hyakutaro, Aichiken—
 - Mirin.
- 20. Osaka Beer Brewery Co., Osaka-fu—
 - Beer.
- 21. Sakaguchi, Kichizo, Hyogoken— Sake
- 22. Tatsuma, Hanyemon, Hyogoken—
 - Sake.
- 23. Tatsuma, Hanzo, Hyogoken—
 - Sake.
- 24. Tatsuma, Yetsuzo, Hyogo-
 - Sake.
- 25. Tatsuma, Yohei, Hyogoken—
 - Sake.
- 26. Uchida, Shichirobei, Aichi-
 - Sake.
- 27. Urabe Sake Brewery Co., Hyogo-ken—
 - Sake.
- 28. Wakaye, Genzayemon, Hyogo-ken—
 - Sake.
- 29. Washio Kiutaro, Hyogoken— Sake.

Tetsu. Hvogo-30. Watanabe. ken-

Sake.

- 31. Yamamura, Tazayemon, Hyogo-ken-Sake.
- Yeigashima Sake Brewery Co., Hyogo-ken-Sake.

GROUP 95.

Inedible Agricultural Products.

Sakaki, Kunisada, Taiho-ku, Formosa-

White bleached China grass.

- 2. Bok-chhun-lai. Banshoryo, -Formosa-Zingiber.
- Byoritsu, 3. Chhi-piang-siong, Formosa-

China grass.

- 4. Giam-sun, Tainan, Formosa-Tute.
- 5. Go-ban-sun, Banshoryo, Formosa-

Zingiber.

Yensuiko, 6. Heng-thien-lai, Formosa—

Zingiber.

7. Kho-tek-iong, Shokwa, Formosa-

Jute.

For-8. Koa-in. Banshoryo. mosa-

Zingiber.

- 9. Koch-in, Banshoryo, Formosa-
- Zingiber.
- 10. Komatsu, Shigekichi, Tainan, Formosa— White bleached China grass.

П. Lau-teng-hui. Kagi. Formosa-

Iute.

- Liau-hoa-te, Banshoryo, Formosa— Zingiber.
- 13. Li-hoe, Banshoryo, Formosa-Zingiber.
- 14. Li-ien-ti, Hosan, Formosa-Pineapple fibre.
- 15. Loa-toa-gong. Taiho-ku. Formosa— Iute.
- Lo-thoang-beng, Baushorvo. Formosa-Zingiber.
- 17. Lu-chheng-hun, Girau, Formosa-Jute.
- Lui-chhun-sam, Tainan, Formosa-Iute.
- 19. Ng-beng-san, Shokwa, Formosa-Pineapple fibre.
- 20. Ng-cheng-kheng, Tainan. Formosa-Pineapple fibre.
- 21. Ng-sin-keng, Kagi, Formosa-Jute.
- 22. Ng-teng-lien, Byoritsu, Formosa-

China grass.

Nozawa & Co., Kobe-Improved vegetable sponges (Luffa).

Ong-hap. Banshoryo, Formosa-

Zingiber.

25. Sia-kuin-si, Shokwa, Formosa-

Pineapple fibre.

26. So-hun-the. Hosan. Formosa-

China grass.

Standard Ginger Works of Japan, Shizuoka-ken-Improved vegetable sponges (Luffa).

Takei, Shinkichi, Taiho-ku, Formosa— Bleached China grass fiber.

Tan-but-hoa, Taiho-ku, Formosa-

Jute.

20. Tan-cheng-kiet. Yensuiko. Formosa-Zingiber.

Tan-chhai-hun. Yensuiko. Formosa-Zingiber.

Tan-iam, Tainan, Formosa-Zingiber.

Tan-khing-lin, Byoritsu, Formosa-China grass.

Tan-thai, Hosan, Formosa— Pineapple fibre.

Tan-tiau-chhiang, Giran, Formosa-Iute.

mosa-Zingiber.

36. Tan-ui-ham, Shokwa. mosa---Iute.

Tin-cheug-liong, Shinchi-ku. 37. Formosa-China grass.

38. Tin-kict, Hosan, Formosa-Pineapple fibre.

Tin-teng-kho, Tainan, For-39. mosa-China grass.

Totomi Ginger and L'egetable Sponge Association, Shizuoka-ken-

Improved vegetable sponges (Luffa), extra large.

41. Tsuda, Chojo, Ibaraki-ken-Gown made of silk produced by worms of chestnut tree (Carigula grit).

Wakiyama, Yesshin, Tainan, 42. Formosa-

White bleached China grass.

Yasutake, Sutejiro, Kagi, For-43. China grass.

GROUP 96.

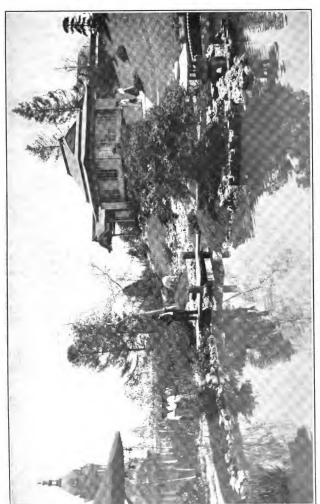
Useful Insects and Their Products. and Plant Diseases.

Fujisawa. Tomokichi. Osaka--

Yellow wax.

2. Nawa, Yasushi, Gifu-ken-· Collections of beneficial and injurious insects.

Tan-tiau-chin, Yensuiko, For- . 3. Suwa, Suyekichi, Osaka-Bee wax. Honey.



JAPANESE GARDEN ART-IN THE JAPANESE GARDEN.

CHAPTER IX.

DEPARTMENT OF HORTICULTURE.

Introductory Remarks.

1. Fruit.—As the food-stuffs that are ordinarily used by our countrymen contain a large percentage of water, the Japanese have not up to the present used much fruit as dessert. Moreover, deterred by the imperfect facilities of transportation, the business of fruit culture was comparatively neglected. It was after the introduction of the Western style of living and the greater perfection of the means of communication that the industry attained a sudden development. The production of an excellent sort of apple in Hokkaido and the northeastern districts of Honshu, as also the successful growth of fruits of the orange family in Kushu and other warm districts are among the results of these changes. Indeed, Japan is now exporting to America and Siberia no small quantity of fruits, and there is every possibility of the business of fruit culture growing more and more prosperous, both for consumption at home and for shipment abroad.

Owing to the geographical formation peculiar to the country, the fruits grown in Japan are of diverse kinds, and may generally be classified as follows:

Fruits of the orange family comprising Mandarin oranges and other oranges, lemons, prunello, etc.

Apples, pears, cherries, persimmons, plums, grapes, peaches, apricots, loquats, berries, bananas, pineapples, etc.

The above are distributed geographically as follows:

Oranges.—Wakayama, Kagoshima, Osaka, Yamaguchi, Shizuoka Hyogo, Nagasaki, etc.

Apples.—Hokkaido, Aomori, Iwate, Yamagata, Miyagi, Fukushima, etc.

Grapes.-Yamanashi, Niigata, Kanagawa, etc.

Cherries.-Hokkaido, Akita, Yamagata, etc.

Bananas and Pincapples.—Formosa, Loochu, and the Bonin Islands.

Pears, persimmons and the rest are grown more or less in every part of the country.

Of those fruits, some are of native origin, while many are imported. Apples, pears, grapes, cherries, strawberries, etc., that have been introduced from America and other countries, are held in great esteem, and have practically superseded the indigenous varieties.

2. Flowers and Garden Plants.—From natural taste and traditional custom, our countrymen are very fond of flowers and ornamental plants and trees. They spare neither pains nor money on the decoration of even miniature gardens with fantastic rocks and well-shaped trees and plants, but they pride themselves most on their skill in growing dwarf trees and shrubs in pots. Nor do they care less for the cultivation of such flowering plants as the chrysanthemum, the peony, morning-glory, etc.

Following are some of the principal flowers of the season:

Spring Flowers.—Cherry, peach, azalea, peonies, lilies of various kinds, pink, hydrangea, chrysanthemum, etc.

Summer Flowers.—Morning-glory, bush-clover, lotus, chrysanthemum, poppies, etc.

Autumn Flowers.—Crysanthenium, begonia, orchids, flowers of the gentian family, pink, etc.

Winter Flowers.—Crysanthemum, plum, camellia, hyacinth, etc.

3. Truck Farming.—Truck farming as a business attained marked progress only lately and as a result of the improved facilities of communication. The business of forcing the growth of vegetables by artificial heat has become quite profitable in the suburbs of large cities. The principal vegetables raised are:

Fruits of the gourd family, peas, beans, etc.

Roots and bulbs, such as radishes of various kinds, carrots, potatoes, lilies, onions, etc.

Greens of sundry kinds.

Vegetables used for condiments, as ginger, horse-radish, pepper, etc.

4. Cured Fruits and Vegetables.—The cured fruits and vegetables that are prepared to a large extent are of limited kind, being generally pickled plums, sugared orange peels, jams, dried peeled radish and edible gourd, tinned fruits and vegetables.

In view of the importance of encouraging horticulture, the Government established from the year 1902, the Experimental Horticultural Garden at Okitsu, Shizouka-ken, to deal with the following matters:

Matters relating to the selection and cultivation of indigenous and foreign fruits and vegetables.

Matters relating to the selection of seeds and saplings.

Matters relating to preparing and curing of fruits, etc.

Matters relating to the distribution of seeds and saplings.

As similar work has been started by not a few local experimental farms, our horticultural business will most probably show marked improvement at no distant date.

Exhibits.

GROUP 105.

Appliances and Methods of Pomology, Viticulture, Floriculture and Arboriculture.

1. Imperial Japanese Commission—

Garden.

- Tanaka & Co., Tokio—
 Spray (installed in Japanese Section, Palace of Agriculture).
- Yamanaka & Co., Osaka— Fancy fence.
 Male and female stag, in bronze.
 Crane, in bronze.
 Lantern.

GROUP 107. Pomology.

(Installed in Japanese Section, Polace of Agriculture.)

 Aritagun Orange Association, Wakayama—

Natsudaidai orange. Unshiu orange.

- Hagi Natsumikan Export Association, Yamaguchi—
 Natsumikan orange.
- Inagun Orange Association, Wakayama—
 Unshiu orange.
 Natsudaidai orange.
- Kogamura Agricultural Society, Nagasaki—
 Unshiu orange.

- Nishisonoki-gun Agricultural Society, Nagasaki—
 Unshiu orange.
- 6. Osaka Senhoku-guu Agriculture Society, Osaka— Unshiu orange.
- 7. Shizuoka Iwohara-gun Orange Association, Shizuoka—

Natsudaidai orange. Unshiu orange.

8. Shizuoka Shita-gun Orange Association, Shizuoka— Orange.

GROUP 108.

Trees, Shrubs, Ornamental Plants and Flowers.

(In the Japanese Garden.)

1. Furukawa Teinosuke, Osaka—

Morning glory.

- Kibe, Yonekichi, Tokio—
 Yomato cedar.
 Hyakunichiko.
 Pine.
 Cedar.
 (Installed in Japanese Pavilion.
- Osaka Horticulturists' Association (Represented by Shimomura Shoshichi). Osaka—

Peony (tree).
Peony (herbaceous).
Darallia fern.
Dwarf plants in pots.

4. Toyama, Shibato, Kobe—
Bamboo palm (rhapis flabelliformus).

Kwannonchiku.

Baran.

Cycas revoluta. Ginmatsu.

Pine.

- 5. Watase, Torajiro, Tokio— Flower seeds.
- 6. Yamanaka & Co., Osaka—Plants in pots.

GROUP 110.

Seeds and Plants for Gardens and Nurseries.

(Installed in Japanese Section, Palace of Agriculture.)

 Watase, Torajiro, Tokio— Vegetable seeds (16 kinds).

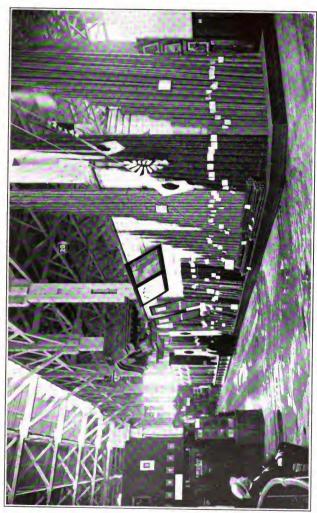
GROUP 111.

Agriculture and Fruit Culture. (Installed in Japanese Section, Palace of Agriculture.)

1. Formosa Government, Taiho-

Pots of bamboo.

- 2. Hachiya Kaki Dealers' Association, Gifu-ken—
 Persimmon seedlings.
- Inazawa Agriculture Society. Aichi-ken—
 Orange seedlings.
- 4. Nakakoma-gun Agriculture Society, Yamanashi-ken— Persimmon seedlings.
- Tauikawa Nisaburo, Hiroshima—
 Persimmon seedlings.



FORESTRY EXHIBITS OF JAPAN-PALACE OF FORESTRY, FISH AND GAME.

CHAPTER X.

DEPARTMENT OF FORESTRY.

Introductory Remarks.

As in the case of fishery exhibits, the Japanese Commission, conferring with the Department of Agriculture and Commerce, restricted the kinds of exhibits in the department of forestry within the limits of the following items: Seeds, chief forest trees and planks, bambooroots and bamboos and their manufactures, shavings and their manufactures, match sticks of various materials, inlaid wood-works and their materials, pine wax and oil, camphor and camphor oil, wood wax, acetic acid and acetate, vines and their manufactures, and various kinds of eatable mushrooms, such as Lepiota (Shiitake), Raconyces digitatus (Iwatake), and Matsu-take. Exhibitors were selected and appointed by the Commission from among the worthiest producers of these articles. Official exhibits, however, were not required to comply with these restrictions.

Forest Administration.—The forests of Japan are under the regulation of the Forest Law of 1897, which provides for the use of Utilization Forests and for the restriction of reckless felling in the Protection Forests, etc. The execution of the same law is carried on by the local Government under the supervision of the Minister of Agriculture and Commerce. The regulation of the State Forests is provided for by the Law relating to State Forests and Plains of 1899. The official organization for State Forests was established by the promulgation of an Imperial Ordinance in 1886. By virtue of this ordinance, the whole Empire is divided into ten districts termed "Major Forest Reserves," which are again subdivided into smaller districts termed "Minor Forest Reserves," numbering 270 in all. The latter, in turn, are subdivided into smaller "Protective Ranges." The locations of the Major Forest Reserves, as well as the number of lower divisions, are shown in the following table:

Major	Fores	t Reserve.		Extent of jurisdiction of the M. F. R. (unit of 1,000 cho.)	Number of Minor Forest Reser- ves.	Number of Protective Ranges.
Aomori,	Dai	Rinkush	o Aomori, Mutsu	1,370	35	173
Akita,	**	**	Akita, Ugo	1,091	21	95
Miyaghi,	4	66	Sendai, Rikuzen	1,286	34	150
Tokyo,	6.	+4	Tokyo, Musashi	936	23	89
Nagano,	**	**	Nagano, Shinano	931	14	64
Osaka,	- 44	**	Osaka, Settsu	567	20	98
Hiroshim	ıa.	**	Hiroshima, Aki	281	32	169
Kochi	**	**	Kochi, Tosa	336	27	122
Kumamo	to	**	Kumamoto, Higo	331	40	158
Kagoshir	na .	••	Kagoshima, Satsuma	446	2.1	141
	Total		10 Major Reserves	7,575	270	1.259

The above organic law is now in force in the Mainland, Shikoku and Kushu. The State Forests of Hokkaido, owing to the advancement of colonization in that island, are now placed under the direction of the Department of Home Affairs, which acts through the Governor of the same island. The State Forests of Formosa are managed by the Governor of the island under the surveillance of the Minister of Home Affairs.

Classification of Forests.—As the country is very mountainous, the area of land available for cultivation is comparatively limited, leaving most of the country covered with trees and shrubs. The aggregate area of forest land in Japan is 23,087,000 cho, or 59 per cent of the total area of the Empire.

The entire forests are divided into Protection Forests and Utilization Forests. The former are established for the protection of forest trees by preventing reckless felling, which is apt to impoverish the soil of surrounding districts and to cause disastrous floods in the event of heavy rainfalls. The object in establishing the latter is to increase the forest products by encouraging forest enterprises. The following figures give the area of these two classes of forests:

"cho"	
tion Forests	48
tion Forests22,388,2	16
tal	64

Classified according to their ownership, the figures for each class stand as follows:

	CITO
State Forests	13.125,320
Crown Forests	2,091,789
Municipal Forests	1,714,754
Forests of Shrines and Temples	167,629
Private Forests	5.987,872
Total	23.087,364

Beside these, there are large uncleared areas of land in Japan termed "Unused Land," or "Genya." Practically, "Genya" is uncultivated land, devoid of trees and, in most cases, of water. "Genya" bears a close relation to the forests. It is hoped that a part of this unused land may be either profitably utilized as grazing land or turned into farm land. But most of the "Unused Land" will finally be converted into forests.

The unused land (Gcnya) under State ownership was, in 1901, 1.434,666 cho; that owned by the crown was 157,174 cho, while the remaining 1,053,462 cho was private property. The total area was 2,645,302 cho, or 6.8 per cent of the whole area.

The forests of Japan are in the mountainous districts along the backbone of the country and are seldom found in the plains or along the coast. Again, they are more numerous in the cold regions in the north, and considerably less in the warmer regions in the south, as shown in the following table:

Regions.	State Forests. (cho)	('rown Forests, (cho)	Municipal Forests. (cho)	Forests of Shrines and Temples. (cho)	Private Forests. (cho)	Total.
Hokkaido	5,492,489	651,550			14,827	6,158,966
Aomori	1,370,887	29.788	81,061	10,737	440,275	1,932,758
Akita	1,091,491		11,509	266	59.837	1,163,103
Miyagi	1,216,118	126	91,536	9.524	359.532	1,746,836
Tokyo	942,253	628,859	131,910	14,684	1,038,921	2,756,627
Nagano	931,746	476,304	275.214	2,328	305.735	1.991,327
Osaka	567,716	304.549	592,497	106,977	1,234,940	2,806,679
Hiroshima	281,948	513	344.763	12,829	1.342.579	1,982,632
Kochi	336,312		87,965	4.526	597,274	1,206,079
Kumamoto	331,442		45,718	4.536	503,124	884,830
Kagoshima	446,278		47,015	1,212	85.975	580,480
Okinawa	46,630		5,566		4.853	57.049

 $Total.\dots.13,125,320-2,091,789-1,714,754-167,629-5,987,872-23,087,364$

1 cho. = 21/2 acres. 259 cho. = 1 square mile-

The above table does not include the forests in Formosa and the Kurile islands.

Thus we see that Japan is still well provided with timber. The northern provinces of the Main Island and Hokkaido are especially abundant in forests and forest products. In these provinces we will find forests in the neighborhood of towns and villages, their outputs being more than sufficient to meet the local needs for building, industrial and mining purposes. Hokkaido exports timber to the Main Island and to China and Korea to be used for building and for railway construction. Thujopsis Dolabrata and Cryptomeria Japonica (species of cedar) timber produced in Aomori and Akita, are exported not only to Tokyo and Osaka but also to Shikoku and Kushu. The forests in the northern part of Honshu are mostly natural forests. On the other hand, those in the southern provinces of Honshu, Kushu and Shikoku are mostly planted forests, although there are some splendid virgin forests in Tosa and Osumi.

Sylviculture was early developed in Yoshino in the province of Yamato, and in parts of Kii, Tamba, Inaba, Higo and Settsu, where we now find splendid woods producing both timber and fuel.

Forest Zones,—Owing to her peculiar geographical, geological and climatic conditions, Japan is richly furnished with various kinds of forest trees and with luxurious floras. Not less than eight hundred species and varieties of forest trees are found well suited for culture in Japan. As a matter of fact, however, only some twenty species are regarded as of special importance from the economic point of view.

The forests of Japan are distributed among four zones, viz., tropical, semi-tropical, temperate and frigid.

- 1. The tropical forest zone extends over the whole of Formosa, the southern half of the Loochoo Islands, the Yayeyama group and the Ogasawawa Islands. Banyan is the most important tree in this zone.
- 2. The semi-tropical forest zone comprises a portion of the Loochoo Islands, the whole of Shikoku and Kushu, a part of Honshu, lying south of 36°. The region occupied by evergreen broad-leaf trees abounds in hard wood of various kinds, used in shipbuilding, furniture manufacture and decorative works. Conifers are well represented in this zone by *Pinus Densiflora S et Z* and *Pinus Thunbergii*, *Parl*. These two species of pines form a forest by themselves either in plains or on hills. They flourish in barren districts where most other vegetations fail to grow. They grow rapidly. The wood is yellowish or white and hard, but elastic, with characteristic durability in the water. It is extensively used in engineering works and in joinery and building.

3. The temperate forest zone extends from the northern half of Main Island to the southern part of Hokkaido, between 36° and 43°5′, where average annual temperature ranges from 6° to 13°.

These forests cover a large area, not a few of them maintaining their primitive features. They produce various valuable timbers, and form an important sylvan resource of Japan. The chief trees of the zone are conifers, which grow rapidly and have been successfully cultivated.

A valuable kind of Cryptomeria Japonica Don is found in Yakushima and is especially prized for its beautiful grains, termed "Udzuramoku" (partridge-spotted) or "Tamamoku" (round-spotted), etc. This timber is especially prized in making valuable furniture and in decorative arts. Abics Firma S. ct Z. and Thuga Sicholdi, Carr are used in making various kinds of boxes. They also furnish the material for the wood pulp industry. Broad-leaf deciduous trees, which are quite numerous in this zone, occupy more than one-half of the whole forest area. They are, however, seldom found forming forests by themselves except in the case of a few such as Ouerens Dentato, Thunb. Zelkowa Keaki is particularly valuable. It often attains a size of fifty feet in length and six or seven feet in diameter. This wood, being very strong, hard, and durable, is valuable for houses and ship building, and for the manufacture of furnitures.

4. The frigid forest zone occupies those places in the northern half of Hokkaido and the Kuriles where the average temperature is not higher than 6°. As the forests in this zone, except those in Hokkaido, are located in high altitudes with poor soil, and subjected to strong winds, the trees are generally too stunted to be of any value. In Hokkaido, however, conifers grow luxuriantly, and many primitive forests are found. The principal trees in these forests are Abies Sachaliensis Mast and Picca Ajanensis S. et Z. Starting from altitudes of 1,300 feet, in the southern parts of the island, these trees are found growing luxuriantly in the mountains of Ishikari, Teshio, Tokachi, Nemuro, and Kitami, and in the island of Kunajiri. Forests at Josankei and Kushiro, the State Forests at Shari and Kunaiiri consist of these trees alone. The timber of Abies Sachaliensis. which is in large demand for architectural purposes, is indeed the most valuable of all the timber produced in Hokkaido. The wood is, however, coarse-grained, and light, and is liable to warp when exposed to dryness and humidity. Rather close-grained and resinous, the wood of Picca Ajanensis is in great demand for architectural works as well as for making chips for weaving braid hats and bonnets.

On the whole, the different forest zones of Japan, as represented by their typical species, make the following percentages of the total forest area:

Conifer forests
Broad-leafed tree forests
Comfers and broad-leafed tree forests
Thinly stocked or devoid of trees
Total

The Value of Forest Products.—The annual production of timber for three successive years (1900-1902) was 2,055,159,400 cubic feet, a greater part of which was consumed as building materials and for industrial and mining purposes, while the rest was exported either as timber or in the form of manufactured articles. The value of exports for the years 1901 and 1902 was 2,214,411 yen, and 2,452,896 yen, respectively, not including bamboos and other forest products and by-products. The last-mentioned products were exported to the value of 5,970,342 yen in 1901, and 5,159,060 yen in 1902.

Japan is now well prepared to ship her forest products to China, Korea and islands in the southern seas, which furnish good markets for timber.

Exhibits.

GROUP 112.

Appliances and Processes Used in Forestry.

- Forestry Burcau, Department of Agriculture and Commerce, Tokyo —
 - (1) Herbariums of important Japanese bamboos: Arundinaria Hidsii.

Munro (Kanzanchiku),

Arundinaria, Hindsii, munro.

Var. Graminea, Bean.

Var. Graminea, Bean (Taiminchiku).

Arundinaria Japonica Sieb. et z. (Yadake).

Arundinaria Marmorea, Makino (Kanchiku). Arundinaria Narihira, Makino (Narihiratake).

Arundinaria Quadrangiuris, Makino (Shikakutake).

Arundinaria Simoni S. et Z. Riv. (medake).

Arundinaria Simoni S. et Z. Var. Chino Makino (Hakonedake).

Arundinaria totisk, Makino (Tochiku).

Bambusa nana roxb (Howo-chiku).

Bambusa nana roxb, Var. Normalis, Makino (Horaichiku).

Bambusa nana, Senanensis Fr. et Lav. (Susutake).

Phyllostachys Bambusoides S. et Z. (Madake).

Ph. Bambusoides S. et Z. var. aurea makino (Hoteichiku).

Ph. Bambusoides S. et Z. var. Marliaclae, Makino (Shibochiku).

Ph. Bambusoides S. et Z. var Castillonis, Makino (Kimmeichiku).

Ph. mitis Riv. (Mosochiku).

Ph. mitis Riv. var. heterocycla. Makino (Kikkochiku).

Ph. puperula munro (Hachi-

Ph. puperula munro var. Boryana makino (Ummonchiku).

Ph. pub. munro, var. nigra, Makino (Kurochiku).

Ph. pub. munro var. nigra Makino, forma, nigro-punctata, Makino (Gomadake).

Sasa, poniculata, Makino et Shibata (Nemagaridake).

Sasa poniculata, var. (Shakohanchiku).

(11) Herbariums of important Japanese forest trees:

(a) Conifers:

Ginkgoaceae.

Ginkgo biloba L. (Icho).

Taxaceae.

Podacarpus chinensis wall (Maki).

Podacarpus Nageia R. Br. (Nagi).

Cephalotaxus drupacea, S. et Z. (Inugaya).

Torreya nucifera, S. et Z. (Kaya).

Taxus cuspidata, S. et Z. (Ichii).

Pinaceae.

Pinus densiflora, S. et Z. (Akamatsu).

Pinus thunbergii pall (Kuromatsu).

Pinus Koraiensis S. et Z. (Chosenmatsu).

Pinus Porvi, S. et Z. (Hime-komatsu).

Pinus pumila, pall (Haimatsu).

Larix leptolepis, Gord. (Karamatsu).

Larix dahurica, turcz. var.

Japonica max (Shikotamatsu). Picea hondoensis, mayr. (To-

Larrix polita carr. (Harigiri). Larrix bicolor. mayr. (Matsu-

Larrix ajanensis, Fisch. (Ezomatsu).

Larrix Glehni Mast. (Shinkomatsu).

Tsuga siebo ldi carr. (Tsuga).

Tsuga diversifolia Max. (Kometsuga).

Psendotsuga japonica, Shirasawa. (Togasawara).

Abies firma S. et Z. (Momi).

Abies veitchii, Lindl. (Shirabe).

Abies Mariesii, Mast. (Aomoritodomatsu).

Abies sachalinensis, Mast. (Todomatsu).

Thujopsis dolabrata, S. et Z. (Asunaro).

Thuja japonica, Max. (Kurobe).

Chamaecyparis obtusa S. et Z. (Hinoki).

Chamaecyparis pisiefera S. et Z. (Sawara).

Criptomeria japonica Don. (Sugi).

Cunninghamia sinensis R. Br. (Koyosan).

Sciadopytis verticillata S. et Z. (Koyamaki).

Juniperus rigida, S. et Z. (Negumigashi).

Juniperus Chinensis, L. (Biya-kushin).

Juniperus Chinensis L. var. procumbens Ec. (Haibiyakushin).

(b) Broad leafed trees:

Platycarpa strobilacea S. et Z. (Sawagurumi).

Juglans sieboldiana, maxim. (Oni-gurumi).

Juglans regia. L. var. sinensis cas. (Teichi-gurumi).

Juglans cordiformis, maxim. (Himegurumi).

Myricaceae.

Myrica rubra. S. et Z. (Yamamomo).

Salicaceae.

Poplus tremula, L. var. villosa Wesm. (Yamanarashi).

Poplus balsamifera, L. var. suaveolens loud. (Dero).

Salix Buergeriana, mig. (Osaruko-Yanagi).

Salix Caprea, L. var. multinervis Fr. et. Sav. (Kori-Yanagi). Salix japonica, thunb. (Shiba-yanagi).

Salix 'Nipponica F. et Sav. (Tachi-Yanagi).

Salix Viminalis L. (Kinu-Yanagi).

Salix apaca, Anders (Onoyevanagi).

Betulaceae.

Carpinus laliflora, Bl. (Akashide).

Carpinus Yedoensis, Max. (Inu-shide.)

Carpinus japonica, Bl. (Kumashide).

Ostrya japonica, Sargent (Asada).

Betula alba, L. var. communis Rgl. (Ma-kamba).

Betula alba, L. var. vulgaris Dc. (Shirakamba).

Betula corylifolia, Rgl. et Max. (Urajiro-kamba).

Betula Ermanni, Cham, var. nipponica. max. (Take-kamba).

Betula globispica, shirai (Zizo-kamba).

Betula Maximowicziana, Rgl. (Udai-kamba).

Betula Bhojpattra, wall. var. typica Rgl. (Ono-ore).

Alnus. Japonica, S. et Z. (Hannoki).

Alnus viridis, Dc. var. sibrica, Rgl. (Miyama-hannoki).

Al. incana, willd, var. glauca ait (Yama-hannoki).

Al. glutinosa, willd. (Kawarahannoki). Al. emerginate, Shirai (Yahazu-hannoki).

Al. firma, S. et L. (Yashabushi).

Al. firma S. et Z. var. multinervia, Rgl. (Himeyashabushi).

Fagaceae.

Fagus sylvatica, L. var. sieboldi, Max. (Buna-no-ki).

Fagus japonica, Max. (Inubuna).

Castanea vulgaris Lam. var. japonica, Dc. (Kuri).

Pasania cuspidata, Oerst. (Shiinoki).

Pas. glabra, Oerst. (Matebashi).

Quercus glandulifera, Bl. (Konara).

Quercus grosseserrata Bl. (Midzunara).

Quercus Crispula, Bl. (On-ara).

Quercus aliena, Bl. (Nara-gashiwa).

Quercus dentata, thunb. (Kashiwa).

Quercus Variabilis, Bl. (Abemaki).

Quercus serrata, thunb. (Kunugi).

Quercus acuta, thunb. (Aka-gashiwa).

Quercus vibrayeana, fr. et Sav. (Urashirogashi).

Quercus Glauca, thunb. (Arakashi).

Quercus Myrsinaefolia, Bl. (Shirakashi).

Quercus Sessifolia, Bl. (Tsukubanegashi).

Quercus Phyllizeoides, A. Gr. (Imamegashi).

Quercus Gilva, Bl. (Ichiigashi).

Quercus thalassica, Hcl. (Shirifukagashi).

Ulmaceae.

Ulnus campestris, Sm. var. laevis, planch. (Harunire).

Ulnus campestris Sm. var. vulgaris, planch. (Kobunire).

Ulnus parvifolia, Jacg. (Akinire).

Zelkowa acuminata, Lindl. (Keyaki).

Celtis sinensis, pers. (Enoki). Aphananthe aspera, planch. (Mukunoki).

Moraceae.

Morus alba, L. var. stylosa, bur. (Kuwa).

Cedrania triloba, Hcl. (Harigiri).

Ficus erecta, thunb. (Inubiwa.)

Ficus wightiana, wall. var. japonica, Miq. (Ako).

Ficus retusa, L. var. nitida, Mio. (Gatsumaru).

Proteaceiae.

Helicia lancifolia, S. et Z. (Yamamogashi).

Magnoliaceae.

Magnolia hypoleuca, S. et Z. (Hono-ki).

Magnolia Kobus, D. C. (Kobushi).

Magnolia parviflora S. et Z. (Oyamarenge).

Magnolia Salicifolia, Max. (Tamamushi).

Michelia compressa, Max. (Ogatamanoki).

Illicium Anisatum, L. (Shikimi).

Trochodendroceae.

Cercidiphyllum japonicum, S. et Z. (Katsura).

Euptelaea polyandra, S. et Z. (Fusa-zakura).

Trochodendron aralioides, S. et Z. (Yama-guruma).

Berberidaceae.

Berberis thunbergii, Dc. (Megi).

Nandina domestica, thunb. (Nanten).

Menispermaceae.

Cocculus laurifoliums Dc. (Koshiu-Uyaku).

Lauraceae.

Cinnamon camphora, Nees (Kusunoki).

Cinnamomum pedunculatum, Nees (Yabu-nikkei).

Machilus thunbergii, S. et Z. (Tabu).

Machilus thunbergii, S. et Z. var. japonica, Yatabe (Awogashi).

Litsea glauca, sieb. (Shiro-damo).

Litsea japonica, Juss. (Hamabiwa).

Lindera strychnifolia, Vill (Tundai-Uyaku).

Lindera triloba, Bl. (Shiro-moji).

Lindera obtusiloba, Bl. (Dankobai). Lindera umbellata, thunb. (Kanakuginoki).

Lindera praecox, Bl. (Aburachan).

Lindera glauca, Bl. (Yama-kobashi).

Lindera sericea, Bl. (Kuromoji).

Actinodaphne laucifolia Meisn. (Kago-Kashi).

Saxifragaceae.

Deutzia scabra, thunb. (Utsugi).

Deutzia gracilis, S. et Z. (Himeutsugi).

Hydrangea paniculata. Sieb. (Nori-utsugi).

Pittosporaceae.

Pittosporum tobira (Tobaranoki).

Distylium racemosum, S. et Z. (Isu).

Rosaceae.

Pirus Aria Ehrh. (Urajiro-noki).

Pirus Toringo Sieb. (Zunei).

Pirus Miyabei, Sargent. (Asu-kinashi).

Pirus Aucuparia, Gaerten, var. japonica, Maxim (Nanakamado).

Pirus Sambucifolia, Ch. et Schl. (Miyama-nanakama-do).

Pirus Macrophylla S. et Z. (Bakuchinoki).

Prunus Grayana, Maxim (Uwanuzuzakura).

Prunus Sciori, Fr. Schin. (Shuri).

Prunus Buergeriana, Miq. (Inuzakura).

Prunus Pseudo-cerasus Lmdl. var. Spontanea, Max. (Yamazakura).

Prunus Spinulosa S. et Z. (Rinboku).

Prunus Incisa, thunb. (Mamezakura).

Photinia villosa, Dc. (Kamatsuka).

Photinia Glabra, thunb. (Kamamemochi).

Amelanchier Asiatica C. Koch (Zaifuriboku).

Kerria japonica, Dc. (Yamabuki).

Rhaphiolepsis japonica, S. et Z. (Sarinubei).

Atephanaudra Flexuoso S. et Z. (Kogome-Utsugi).

Leguminosae.

Saphora japonica, L. (Enjin). Saphora Platycarpa, Max.

(Fujiki).

Cadrastis Amurensis B. et H. var. floribunda Max (Inuenjiu).

Albizzia Julibrissin, Boiv. (Nemunoki).

Gleditschia Japonica, maq. (Saikachi).

Rutaciae.

Zanthoxylum Piperitum, Dc. (Sansho).

Zanthoxylum Schimifolium S. et Z. (Inuzansho).

Orixa Japonica, thunb. (Ko-kusagi).

 Phyllodendron Amurense, Kupr. (Kiwada). Simarubaceae.

Picrasma .Quassioides, Benn (Nigaki).

Meliaceae.

Melia Japonica, Don. (Sendan).

Euphoibiaceae.

Daphniphillum Glaucesens, Bl. (Hime-yuzuriba).

Mallotus Japonica, Muel. Arg. (Akamegashiwa).

Excoecaria Japonica, Muel. Arg. (Shiraki).

Buxaciae.

Buxus Semperivirens, L. (Asamatsuge).

Anacardiaseae!

Rhusvernicifera D. C. (Urushi).

Rhus. Arichocarpa, Miq. (Ya-maurushi).

Rhus. Succidanea L. (Hazenoki).

Rhus, Silvestris S, et Z. (Ya-mahaze).

Rhus. Semi-alata Mur. var. Osbeci D. C. (Fushinokı).

Aquifoliaceae.

Ilex crenata, thunb. (Inutsuge).

Ilex Pedunculosa, Mig. (So-yogo).

Ilex Pldhami, Miq. (Nanaminoki).

Celasbraceae.

Euonymus Alatas, C. Koch (Nishikigi).

Euonymus Japonica, thunb. (Masaki).

Staphyleaceae.

Staphylea Bumalda, S. et Z. (Mitsuba-Utsugi).

Euscaphis Japonica, Pax. (Gonzui).

Aceraceae.

Acer Palmatum, thunb. (Kaede).

Acer Tschonoskii, Max. (Minekaede).

Acer Micranthum, S. et Z. (Komine-Kaede).

Acer Parisflorum, Fr. et Sav. (Tetsukaede).

Acer Pictum, thunb. var. Mono, Max. (Itayakaede).

Acer Spictum Lam, var. Ukurunduens, Max. (Ogarabana).

Acer Japonicum, thunb. (Hauchiwakaede).

Acer Argentum, maxim (Asanohakaede).

Acer Crataegi-folium S. et Z. (Meurinoki).

Acer Ginnala, Maxim (Karakogikaede).

Acer Distylium S. et Z. (Hitotsubakaede).

Acer Nikoense, Max. (Megusurinoki).

Acer Carpinifolium, S. et Z. (Yamashibakaede).

Acer Rufinerve S. et Z. (Urinoki).

Hippocastanaceae.

Aesculus Turbinata, Bl. (Tochinoki).

Sapindaceae.

Sapindus Mukurosi, Gaert. (Mukuroji).

Koebrenteria Paniculata, laxm. (Mokugenji).

Sabinaceae.

Meliosma Myrianatha, S. et Z. (Awabuki).

Meliosma Tenuis, Maxim (Mi-yamahosho).

Meliosma Pungens, Wall. (Yamabiwa).

Rhamnaceae.

Berchemia Racemosa, S. et Z. (Kumayanagi).

Rhamnus Crenata, S. et Z. (Isonoki).

Hovenia Dulcis Thunb. (Kempoňashi).

Microhamnus Franguloides, Max. (Nekonochichi).

Elacocarpaceae.

Elaciocarpus Photinifolia K. et A. (Mogashi).

Elaciocarpus Japonica S. et Z. (Kobanmochi).

Tiliaceae.

Tilia Cordata Mill, var. japonica Miq. (Shinanoki).

Tilia Miqueliana, Max. (Bodaijiu).

Tilia Maximoswicziana, Shirasawa (Obanobodaijiu).

Tilia Kusiana, Makino et Shirasawa (Heranoki).

Theaceae.

Thea Japonica L. nois (Tsubaki).

Stewartia Pseudo-camellia, Max (Natsutsubaki).

Eurya Ochanacea Szysz (Sakaki).

Eurya Japonica, thunb. (Hasakaki). Flacourtiaceae.

Idesia Polycarpa, Max. (Ii-giri).

Elaeagnaceae.

Elaeagnus umbellata, thunb. (Akigumi).

Lythraceae.

Lagerstroemia Indica, L. (Sarusuberi).

Rhizophoraceae.

Jambosa Vulguris, D. C. (Futomono).

Araliaceae.

Fatsea Japonica, Donc et Planc (Yatsude).

Aralia Sinensis L. (Taranoki).

Dendoropanax Japonicum, Seen. (Kakuremino).

Acanthopanax Ricini-bolium S. et Z. (Harigiri).

Acanthopanax Sciadophylloides, Fr. et Sav. (Koshiabura).

Acanthopanax Innovans, S. et Z. (Takanotsume).

Cornaceae.

Cornus Kousa, Buerg. (Yamaboshi).

Cornus Officinalis S. et Z. (Sanshiju).

Cornus Macrophylla Wall. (Mizuki).

Cornus Ignorata, C. Koch (Kumanomizuki).

Marlea Platanifolia S. et Z. (Urinoki).

Aucuba Japonica, thunb. (Aoki).

Clethraceae.

Clethra Barbinorvis S. et Z. (Ryobu).

Ericaceae.

Rhododendron Metternichii, S. et Z. (Shakunagi).

Rhododendron Keiskei, Miq. (Hekagitsutsuji).

Tripetaleia Paniculata, S. et Z. (Hotsutsuji).

Pieris Japonica D. Don (Asebi).

Sapotaceae.

Syderoxylon Ferrugineum H. et A. (Akatetsu).

Symploceae.

Symplocos Crataegoides Ham. (Sawafutagi).

Symplocos Myrtacea S. et Z. (Hainoki).

Symplocos Prunifolia S. et Z. (Kurobai).

Styracaceae.

Halesia Corymbosa, B. et H. (Asagara).

Styrax Japonica S. et Z. (Egonoki),

Styrax Obassia S. et Z. (Ha-kuunboku).

Oleaceae.

Flaxinus Bungiana De. var. Pubinervis Wg. (Toneriko.)

Flaxinus Longicuspis S. et Z. (Aotago).

Flaxinus Sieboldiana Bl. (Shioji).

Ligustrum Ibota, Sieb. (Ibota).

Ligustrum Japonicum, thunb. (Nezumimochi).

Osmanthus Aquifolium B. et H. (Hiiragi).

Borrajinaceae.

Ehretia Macrophylla Wall (Marubachishanoki).

Scrophlariaceae.

Paulownia Imperiaris S. et Z. (Kiri).

Bignoniaceae.

Catalpa Kaempferi S. et Z. (Kisasage).

Caprifoliaceae.

Viburnum Dilatum thunb. (Gamazumi).

Viburnum Sieboldi Miq. (Gomagi).

Viburnum Tomentosum thunb. (Yabudemari).

Viburnum Phlebotrichum S. et Z. (Otako-yozome).

Viburuum Opulus L. (Kamboku).

Viburnum Furcatum Bl. (Mushikari).

Viburnum Odoratissimum Ker. (Sangojiu).

(111) Dried specimens of important Japanese forest tree seedlings:

Cryptomeria Japonica, Don. (Sugi).

Pinus thunbergii Parl (Kuromatsu).

Pinus Densiplora S. et Z. (Akamatsu).

Chamaecyjparis Pisifera S. et Z. (Sawara).

Chamaecyjparis Obtusa S. et Z. (Hinoki).

Quercus Glandulifera Bl. (Konara).

Quercus Myrsinaefolia Bl. (Shirakashi).

Zelkowa Keaki, Sieb. (Keaki).

Cinnamomum Camphora Nees. (Kusu).

Castanea Vulgaris L. var. Japonica D. C. (Kuri).

(1V) Working plan in the state forest of Awomori forest rereserve:

Model of the state forest, Uchinappe.

Fourteen photographs of the forest of Uchinappe; views: felling, sawing and transportation.

A graphic representation of the section of Thujopsis Dolabrata, S. et Z., in the above forest.

Two graphic representations of the yield of the above forest

Seven railway sleepers, for specimens of the durability of the same wood.

Two cleared logs.

Two cleared pillars.

Six planks of the same.

(V) Working plan in the private forest of Yoshino, Yamato—

Twenty-four photographs of the views, felling, sawing and transportation carried on in the Yoshino forest.

One graphic representation of the sections of a cryptomeria Japonica, Don, in the same forest.

One topography of Yoshino forest.

One graphic representation of the yield of the above forest.

Ten cleared logs of cryptomeria Japonica, Don, in Yoshino forest.

Twelve logs of the same with bark, for staves to make tubs and casks.

Two barks of cryptomeria Japonica for roofing.

Map of the distribution of forests in Japan.

Chart showing the yield of wood in Japan by different forest reserves.

Diagram of the yield and expenses of the state forests in Japan.

Chart showing the forest area by different forest reserves.

Chart showing the locality of the state forests where replantation of trees is effected.

Statistical table showing the import and export of forest products in Japan.

Diagram showing forestry education in Japan.

Diagram showing the history of the management of the state forest in Japan.

Eighty-six photographs of forests by different zones.

Damming of torrents and deforestation to improve domain land, forest reserve of Hiroshima.

2. Formosan Government, Taihoku—

Photographs of forest.

3. Ikeda, Jirokichi, Tokyo-

Japanese forest seeds.

Quercus Serrata Bl. (Kunugi). Quercus Glandulifera Bl. (Nara).

Quercus Acuta Thunb. (Akagashi).

Quercus Myrsinaefolia Bl. (Shi-rakashi).

Quercus Dentata, thunb. (Kashiwa.

Aphananthe Aspera, planch. (Mukuenoki).

Sapindus Mukuroji, Gaet. (Mukuroji).

Fraxinus Sieboldiana Rupr. (Shioji).

Paulowinia Imperiaris, S. et Z. (Kiri).

Cercis Sinensis, Pers. (Enoki). Castanea Vulgaris L. var. Japon-

Grant variety (Tanbakuri).

Castanea Butsh-var. (Shibakuri).

Albizzia Julibrissin, Boiv. (Nemunoki).

Taonabo Japonica, Szysz (Mokkoku).

llex Latifolia, thunb. (Tarayo). Pasania Cuspidata, Oerst. (Shii).

Pasania Glabra, Oerst (Matebashii).

Gardênia Florida L. (Kuchinashi).

Diospyros Kaki L. F. (Kaki). Magnolia Hypoleuca S. et Z. (Ho).

Magnolia Kobus, Dc. (Kobushi), Gleditschia Japonica Miq. (Saikachi). Rhus Vernicifera, Dc. (Urushi). Rhus Semi-alata, Murr (Nurude).

Tilia cordata, Mill (Shinanoki). Fagus Sylvatica L. (Buna).

Aesculus turbinata, Bl. (Tochi). Cercidiphllum Japonica S. et Z. (Katsura).

Melia Japonica Don (Sendan).

Horenia Dulcis thunb. (Kemponashi).

Sophora Japonica, L. (Yenji).

Aleurites Cordata Muell Arg (Aburagiri).

Listea Aciculata Bl. (Shiro-damo).

Quercus Phyllireoides, gr. (Ubamrgashi).

Juglans Cordiformis, Max. (Himekurumi).

Ligustrum Japonicum, thunb. (Nezumimochi)

Cinnamomum Laureirii Nees (Nikkei).

Styrax Obassia S. et Z. (Hakuunboku).

Larix Leptolepis Gord (Karamatsu).

Juniperus Sinensis (Nedzumisashi).

Chamaecyparis Pisifera S. et Z. (Sawara).

Padocarpus Nageia R. Br. (Nagi).

Pinus Parviflora, S. et Z. (Himekomatsu).

Abies Firma S. et Z. (Momi).

Tsuga Sicboldi, Carr. (Tsuga). Picea Hondoensis, Mayr. (To-

Abies veitchi, Lindl. (Shirabe).

hi).

Abies Sachalinensis, Mast. (Todomatsu).

Picea Ajanensis, Fisch. (Yezo-matsu).

Cunninghamia sinensis R. Br. (Koyasan).

Pinus Koraiensis S. et Z. (Tohosenmatsu).

Taxus Cuspidata S. et Z. (Ichii). Torreya Nucifera S. et Z. (Kaya).

4. Watase Torajiro, Tokyo— Japanese forest tree seeds.

Cinnamon Camphora, Nees (Kusu).

Sterculia Platanifolia, L. (Aogi-

Citrus trifoliata, L. (Karatachi). Alnus Japonica S. et Z. (Hannoki).

Edgeworthia cheysanita, Lindl. (Mitsumata).

Morus Albra, L. (Kuwa).

Acerpalmatum, thunb. (Kaide). Zelwawa Keaki, Sieb. Lindl.

(Keaki). Thea Sinensis, L. (Cha).

Thea Japonica, L. (Tsubaki).

Juglans Regia, L. (Kurumi).

Pinus densiflora S. et Z. (Akamatsu).

Pinus Thunbergii Parl (Kuromatsu).

Cryptomeria Japonica Don (Sugi).

Chamace-cyparis Obutusa S. et Z. (Hinoki).

Thunjopsis Dolabrata S. et Z. (Hiba).

Sciadopitis Verticellata S. et Z. (Koya-maki).

Ginkgo Biloba, L. (Icho).

Torreya nucifera S. et Z. (Kaya).

Larix Leptolepsis, Gord. (Karamatsu).

Pinus Pentaphylla, Mayr. (Govomatsu).

GROUP 113.

Products of the Cultivation of For-

Abe, Yonosuke, Hokkaido—
Specimens of woods used in construction:

Picea ajanensis Fisch (Ezomatsu).

Abies Sachalinensis, Mast. (Todomatsu).

Acanthopanax ricinifolium, S. et Z. (Hariguri).

Fraxinus Mandshurica, Rupr. (Yachitamo).

Cercidiphyllum Japonicum, S. et Z. (Katsura).

Juglans sieboldiana, Max. (Kurumi).

2. Aboshidani, Yoshimatsu, Kobe—

Turpentine.

 Aomori-ken Akebi-vine Basket Workers' Association, Aomori-ken—

Baskets and other works of Akebi-vines.

4. Arai, Taiji, Taihoku, Formosa—

Keteleeria.

 Chiam-o-sai, Taiho-ku, Formosa—
 Bamboo. 6. Cho-pian-in, Taiho-ku, Formosa—

Bamboo.

7. Dokura, Tatsujiro, Shinko— Libosidrus.

Machilus thunbergii.

8. Forestry Bureau, Department of Agriculture and Commerce, Tokyo—

Specimens of the important Japanese bamboos:

Arundinaria hindusii Munro (Kauzanchi-ku).

Arundinaria var. - graminea Bean (Taiminchi-ku).

Arundinaria Quadrangularis Makino (Shikakudake).

Arundinaria Japonica S. et Z. (Yadake).

Arundinaria Marmoria makino (Kanchi-ku).

Arundinaria Narihira makino (Narihiradake).

Arundinaria Totsik makino (Tochi-ku).

Arundinaria Simoni Riviere, var. chino makino (Hakonedake).

Arundinaria Narihira, makino, var. (Yashadake).

Arundinaria Simoni, Riviere (Medake).

Bambusa nana var. Normalis makino (Horaichiku).

B. palmata, marliac forma nebulosa makino (Shakohanchiku).

Phyllostachys Bambusoides Siedit Zucc. var. auria makino (Hoteichiku). Phyllostachys Bambusoides S. et Z. var. castillonis makino (Kinmeichiku).

Ph. B. S. et Z. var. Marliacca (Shibochiku).

Ph. Mitis Riviere (Mosochiku).

Ph. Mitis Riviere var. heterocycla, makino (Kikkochiku).

Ph. Pubemla Munro (Hachi-ku).

Ph. Pubemla Munro var. Nigra makino, forma nigra Punctata makino (Gomadake).

Ph. Pubemla Munro var. Boryana makino (Unmonchiku).

Ph. Pubemla Munro var. Nigra (Kurochiku).

Sasa Paniculata makino (Nemagarchiku).

Sasa Borealis makino et Shibata (Suzudake).

Sasa Poniculata var. (Torafudake).

Important wood for building:

Pinus densiflora, S. et Z. (Ak-amatsu).

Chamaecyparis Obtusa, S. et Z. (Hinoki).

Cryptomeria Japonica Don. (Sugi).

Abies Sachalinemsis mast (Todomatsu).

Picea Hondoensis mayr (Tohi).

Larix Leptolepis, Gord. (Karamatsu).

Tsuga Sieboldi, Carr. (Tsuga).

Abies firma, thunb. (Momi).

Cercidiphyllum Japonica S. et Z. (Katsura).

Fraxinus mandshurca, Rupr. (Yachitamo).

Acanthopanax Ricinifolium, S. et Z. (Sen).

Cladrastis Amurensis B. et H. var. floribunda max (Enjiu).

Castanea Vulgaris var. Jap. Dc. (Kuri).

Zelkowa Keaki, Sieb. (Keaki). Aesculus turbinata, Bl. (Tochi).

Juglans regia, I. (Kurumi).

Planks of important Japanese woods:

Zelkowa Keaki, Sieb. (Keaki). Juglans Sieboldiana, max. (Kurumi).

Morus Alba, L. (Kuwa).

Cerci-diphyllum Japonicum S. et Z. (Katsura).

Cinnamomum Camphora, nees. (Kusunoki).

Fraxinus Mandshurica, Rupr. (Yachitamo).

Phillodendron Amurense, Rupr. (Kiwada).

Magnolia hypolenca, S. et Z. (Honoki).

Aesculus turdinata, Bl. (Toch-inoki).

Acer palmatum, thumb. (Kaede).

Prunus Pseudo-cerasus, Lindl. (Yamazakura).

Cedrela Chimarsis, Juss. (Chanchin).

Paulownya Imperiaris thunb. (Kuri).

Fagus sylvatica, Sieboldi (Bunanoki).

Diospyros Kaki, l. f. (Kaki). Melia Japonica, Don. (Sendan).

Quercus Acuta, thunb. (Akagashi).

Machilus thunbergii S. et Z. (Tabunoki).

Quercus crispula, Bl. (Onara). Cryptomeria Japonica, Don. mit fines grains (Yakusugi).

Taxus Cuspidata S. et Z. (Ichii).

Gingko Biloba, L. (Icho). Cryptomeria Japonica, Don. of special kind (Jindaisugi).

Crude camphor.

Refined camphor: amorphous, pulverized and compressed.

Camphor oil: white, red and black.

Varnish.

Turpentine.

Saffrol.

Distrifector obtained in the separations of camphor.

Photographs, etc.

Staves of oaks for casks and barrels.

Made barrels.

Assortment of chip.

Different kinds of woods to obtain chip.

Chip braids and bonnets thereof.

9. Formosau Government, Taihoku, Formosa—

Specimens of timber.

Camphor and its by-products. Specimens of bamboos.

10. Fukiai Camphor Refining
Factory, Kobe—
Refined camphor.

 Furuyama Chiushichi, Osaka—
 Bird Lime.

12. Giam-hai Kagi, Formosa— Phyllostachys quilioi.

 Hakone Products Association, Kanagawa-ken—
 Wood mosaies

14. Hokkaido Joint Stock Lumber Co., Hokkaido—

Specimens of timbers produced in Hokkaido.

Staves and barrels.

15. Hokkaido Wood Chip Factory, Hokkaido—

Assortment of chip-relief kasumi, Kasumi, poplar Kasumi, poplar relief, fibre, etc.

16. Kimura, Kumajiro, Shigaken—

Bamboo roots for whips—mostly of phyllostachys bambusoides and ph. puperula, etc.

17. Koga, Tatsushiro, Okinawaken—

Leaf fans.

Kohaze, Jirobei, Tokyo—
 Specimens of important Japanese timbers.

19. Kyoseisha Abeki-vine Workers' Association, Nagano-

Baskets and other works of Akebi-vines.

- 20. Lim-goat-theng, Toroku-Bamboe Dandrocalamus latiflo-THE
- 21. Lim-pi, Taihoku-Bamboo.
- 22. Mori, Chiujiro, Hokkaido-Match blocks.
- 23. Murotani, Toshichi, Kobe-Japanese bamboos and their products: Fishing rods of white bamboos.

White colored bamboos. Fishing rods of black bamboos. Black colored bamboos.

Smoked and worked bamboos.

24. Nagata, Daisuke, Kobe-Japanese bamboos and products:

Fishing rods of yellow bamboos. Fishing rods of black bamboos. Black colored bamboos. Spotted bamboos.

Leopard spotted bamboos.

Amber-colored bamboos. Black bamboos with root head.

Stender bamboos.

Leopard spotted with root head. Amber-colored bamboos root head.

Fancy knotted bamboos.

Kumazasa bamboos.

Yellow bamboos.

Giant bamboos.

Handles of yellow bamboo.

Handles of amber bamboo.

Dark spotted bamboo. Finely grained bamboos. Smoked bamboos. Charred bamboos. Artificially spotted bamboos. Colored bamboos. Imitated black bamboos. Carved bamboos. A bamboo in pots, etc.

25. Saito, Gishiro, Kobe-Japanese bamboos and their products: Colored bamboos. Artificially charred bamboos. Bamboo mattings. Bamboo blinds, etc.

26. Shimidzu, Toyotaro, Hiroshima-ken-

Thin crape. Improved crape. Scaly crape. Crisped crape. Striped crape. Striped net works. Pressed narrow bands. Crape thread form. Plain chip braids.

Bonnet thereof.

Assortment of chip.

27. Shinkiugumi & Co., Kobe-Assortment of chip: Chip, colored and plain. Chip braids, bonnets thereof. Chip mattings. Chip baskets. Photographs, etc.

Straw and Chip Braid Dealers' Association, Tokyo-Assortment of chip: Plain crape.

Figured crape.

Undulated, striped, brushed, pressed, twisted, printed, Hakata printed and tubelar chip, etc.

Chip braids thereof.

Different kinds of wood to get chip.

29. Tanaka, Shokichi, Kanagawaken—

Wood mosaics.

30. Tan-tek-heng, Nanto, Formosa—

Bamboo.

- 31. Tiun-chui-bok, Nanto, Formosa— Phyllostachys aurea.
- Todoroki, Kohei, Kobe— Match blocks.
- Tsukiyama, Hachigoro, Kobe—
 Match blocks.
- Tsutsumi, Sanjiro, Hokkaido—
 Chip for packing, etc.
- 35. Watanabe, Kanyemon, Kanagawa-ken—

Wood mosaics.

- Yamada, Sakuro, Hokkaido— Match blocks.
- 37. Yamazaki, Shosuke, Naganoken-

Bamboo works.

 Yoshikawa, Matabei, Osaka— Turpentine oil.

Wood tar antiseptics and woods impregnated with the same.

GROUP 114.

Appliances for Gathering Wild Crops and Products Obtained.

1. Chikugo Vegetable Wax Co., Fukuoka-ken—

Rhus beans and wax thereof.

- Forestry Bureau, Dept. of Agriculture and Commerce, Tokyo—
 - Gall nuts, illustrations of gall insects, their development; Rhus semialata, mur, var. osbeschi. Affected by gall insects in different stages.
- 3. Haga, Yahei. Yehime-ken— Vegetable wax.
- 4. Higo Vegetable Wax Co., Kumamoto-ken—

Vegetable wax.

- 5. Honda Uichiro Wax Co.— Vegetable wax.
- 6. Jyoko, Otokichi, Yehimeken—

Vegetable wax.

7. Kitagumi Ikeda Kawachi Co., Kobe—

Rhus beans and vegetable wax thereof.

8. Murakami, Chojiro, Ychimeken—

Vegetable wax.

- Noda, Bunji, Yehime-ken—
 Rhus beans and vegetable wax.
- 10. Okada, Usaburo, Ychimeken—

Rhus beans and vegetable wax.

- Okazakı, Yonejiro, Yehimeken—
 Vegetable wax.
- 12. Oita Vegetable Wax Dealers' Association, Oita-ken—

Rhus beans, vegetable wax and candles thereof.

 Osaka Shiitake Mushroom Dealers' Association, Osaka—

Shiitake mushrooms.

- Takasu Tin Food Co., Hiroshima-ken—
 - Mattake mushrooms and bamboo sprouts.

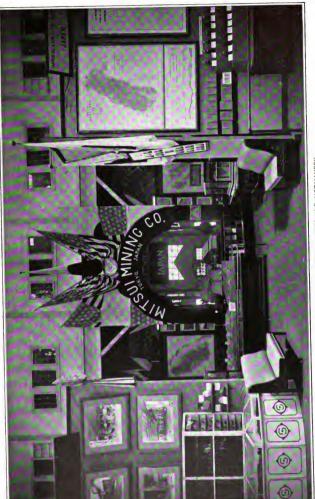
15. Tan-jit-seng, Banshoryo, Formosa—

"Haushimen."

16. Uranaka, Yojiro, Yehimeken—

Rhus beans and vegetable wax.

- Uyeda, Takezo, Osaka— Mattake mushrooms and Shimeji mushrooms.
- Yamazaki, Shinkichi, Kyoto— Mattake mushrooms and bamboo sprouts.
- Yoshishike, Zenjiro, Shinchiku, Formosa— "Shoro Tsuso."



JAPANESE SECTION-PALACE OF MINES AND METALLURGY.

CHAPTER XI.

DEPARTMENT OF MINES AND METALLURGY.

Introductory Remarks.

In this department, the Japanese Commission purposes to present some of the phases of the recent development of the mining industry and of the mineral resources of Japan. In order to comply with such purpose, the commission, except in the case of official exhibits, determined the personnel of exhibitors and the kinds of exhibits. Almost the whole of the exhibit in this department was collected and arranged by the Japan Mining Society, under the surveillance of the Commission.

Geological Formation and Mining Deposits of Japan.—The geological formation of the Japanese Islands may be briefly described as follows. In the aqueous formations, those belonging to the Archaean are gneiss and crystalline schist systems, which are distributed over a very limited area, amounting to about 3.78 per cent of the total area; those belonging to the Paleozoic are the Triassic, Jurassic and Cretaceous systems, which form 7.95 per cent; and those belonging to the Caenozoic are the Tertiary and the Quaternary rocks, which form 45.84 per cent, or nearly half of the total area. In the igneous rocks, those belonging to the older periods are granite, quartz, gabbro, diabase, porphyry and porphyrite, which cover 11.27 per cent. The eruption of granite is especially prominent in this formation. Those belonging to the younger periods are andesite, basalt and liparite, which form 20.92 per cent.

According to the investigation of the Bureau of Geological Survey, two-thirds of the country may be said to consist of rocks of younger periods and igneous rocks. This fact has important bearings upon the distribution of minerals in Japan.

The following is a list of metal mines classified according to their geological ages:

Those belonging to the Archaean system are: Kamioka and Mozumi silver-lead-copper mines, of Hida province; Besshi copper mine and Ichinokawa antimony mine, of Iyo province; and Yoshioka copper mine of Bitchu province.

Those belonging to the Palacozoic system are: Hihira and Makimine copper mines, of Hyuga province; Goki copper mine, of Higo

province; Kamaishi iron mine, of Rikuchu province; and Nakakosaka iron mine of Kotsuke province.

Those belonging to the Mesozoic system are: Shikano antimony mine of Suwo province; Dogamura copper mine of Iwami province; Omotani copper mine, of Echizen province.

Those belonging to the Cainozoic system are: Okozawa copper mine and Kosaka silver-copper mine, of Rikuchu province; Innai silver mine and Ani and Arakawa copper mines, of Ugo province; Hosokura silver-lead mine, of Rikuzen province; Handa silver mine, of Iwashiro province; Ashio copper mine of Shimotsuke province; Okoyate copper mine, of Kaga province; Sado gold-silver-copper mine, of Sado; Ikuno gold-silver-copper mine, of Tajima province; Serigano gold-silver mine, of Satsuma province; Yamagano gold-silver mine, of Osumi province.

Development of Mining and Metallurgy in Japan.—Under the old regime, the mining industry of Japan was comparatively undeveloped. But since the opening of the new era, following the abolition of the military rule, 37 years ago, this industry has made such a rapid progress that it now forms one of the most important national resources.

Early in the new period, the Government took the mining industry into its own hands and placed the Sado, Ikuno, Muoi, Ani, Kosaka, Kamaishi and Okusu metal mines, as well as the Takashima and Miike collieries under its direct control. Foreigners were employed and improvements in various directions were effected. Foreign systems were adopted in mining, smelting, and transportation, and an example was set to private mining companies. At the same time, an engineering school was established for diffusing knowledge of mining and metallurgy. The result was a remarkable advance in these departments of scientific learning.

Henceforth a large number of private operators imitated the Government's enterprises. Although their undertakings were not invariably successful, the result was a remarkable development of the mining industry in general.

At this time, the most notable phenomenon was the activity of the petroleum industry. The sinking of wells was at first done by manual labor, but since the Japan Petroleum Joint-Stock Company introduced American oil-well boring machines with success in 1892, big strides have been made in the employment of machinery. Oil was formerly transported on men's shoulders, but a great improvement was effected in 1878 by the introduction of iron pipes. The private operators con-

tributed much to the further development of the mining industry. The changes for the better, effected in recent years, are summarized below:

- The adoption of the rock drill with compressed air as motive power.
- 2. The more extended use of dynamite and other powerful explosives.
 - 3. The wire-rope tramway instead of human carriers.
 - 4. The hydraulic pumps and other new types of pumps.
 - 5. The automatic hauling machine adopted.
- The Huntington mill, Frue vanner, and Duncan concentrator adopted.
 - 7. The water jacket furnace adopted.
- 8. Electricity applied for driving machinery and to the refining of crude copper.
- 9. The Bessemer, Augustine, Patera, Kiss, Russel, Oker process of refining adopted.
 - 10. Boilers, engines, and turbines of new types adopted.

Condition of Mine Workers.—The total number of persons employed in the Japanese mines was 146,939 in June, 1902, including miners, carriers, pickers, smelting men, machine tenders, iron workers, and pumpmen. Most of these laborers work underground and under uncomfortable circumstances, but in spite of these disadvantages, they are generally satisfied. These mine workers generally live in dwellings provided by their employers, those with families in separate rooms, and those without families in large common rooms. The dwellings are either thatched or tile-roofed, and the inside of the rooms is comparatively clean.

In case of accidents while on duty, their employers are bound to take care of them. The employers bear part of the whole of the expenses of medical attendance, and, when the patients are treated in hospitals other than those owned by the employers, they are daily paid a sum of money to meet the expenses of such hospitals. In case of their being disabled, they are given a fair amount of money, and in case of death, generally a sum is granted to the bereaved families to cover funeral expenses.

In mines with a more perfect system, mine workers' mutual aid associations are in existence. The aim of these associations is to extend help to the members in case of emergency. To this end, reserve funds are created by contribution from the members as well as from the mine operators or sympathizers, and disbursements are made from these funds in case of injury, illness, or death of any of the members. Although in small mines where only a small number of workmen are employed, no provision is made for the education of the miners' children; in larger mines they are educated either in schools established by the mine owners or in public schools subsidized by the mine owners. The tuition fee is comparatively small.

One of the peculiar usages prevailing among miners is that of taking the oaths of chiefs and proteges and of brethren, observed with religious strictness. The instructions of the "boss" are expected to be obeyed, whether they are right or wrong. These chiefs are in intimate communication with each other, so that in case a miner goes from one mine to another seeking employment, etc., he is sure, if he gives the name of his chief, to be kindly treated. His new friends will go to no little trouble to find employment for him, and will often give him money to cover his traveling expenses. This peculiar spirit of fraternity is utilized for the control of miners, and it is difficult for the outsider to realize how implicitly the commands of these chiefs are obeyed and how well order is preserved. But this sympathy between the chief and the followers sometimes aggravates a fight between the chiefs themselves. and often brings about tragic incidents. Sometimes these retainers of a "boss" cause trouble to the latter's employers. Under such circumstances one would suppose that strikes are of frequent occurrence. This is not the case. Strikes of miners are almost unheard of, although fights among them are sometimes reported.

Statistics of the Mining Industry.—The following table shows the number and areas of mining concessions for four consecutive years:

	No., of Mining Concessions.	Area. (Tsubo)
1899	5,280	555,391,644
1900	5,389	589,778,353
1901	5,724	704,974,325
1902	5,908	788,156,282

The following table shows the number of mining concessions in, or not in, operation in each of the years specified:

In	Not in	Регс	centage.	
Operation (Tsubo)	•	In Operation.	Not in Operation.	
1898	, ,	•	48.9	
1899268,971,27	286,420,369	48.4	51.6	
1000	57 305,528,386	48.2	51.8	

The following table shows the annual outputs of principal mineral products:

Year.	Gold (Momme)	Silver (Momme)	Copper (Kin)	Lead (Kin)	Iron (Kwan)
1899 1900 1901 1902	. 566,536 . 660,153	14,978,060 15,681,595 14,598,749 15,371,045	40,459,709 42,182,253 45,652,927 48,390,637	3,313,464 3,130,080 3,004,983 2,740,741	6,151,633 6,624,447 7,853,163 8,568,059
Year.	Antimony (Kin)	Manganese (Kin)	Coal (Ton)	Petroleum (Koku)	Sulphur (Koku)
1899 1900 1901	. 716,477 . 911,463	18,803,440 26,384,526 27,115,884 18,110,792	6,721,798 7,429,457 9,027,325 9,701,682	474,406 767,092 983,799 877.837	17,002,186 24,064,196 27,580,478 30,478,728

The following table shows the amount of the annual exports of principal mineral products:

Year.	Copper	Antimony	Coal	Sulphur	Manganese
	(Kin)	(Kin)	(Kin)	(Kin)	(Kin)
-	34,129,290	627,712	2,402,785	29,726,987	21,504,777
-	36,656,434	464,317	2,922,215	29,879,849	14,921,197
	34,423,015	1,932,723	2,969,885	35,454,556	4,489,392

Exhibits.

GROUP 115.

Working of Mines, Ore Beds and Stone Quarries.

1. Murakami, Sanzo, Aikawa, Sado-

Special water proof fuse.

Water fuse

Ordinary fuse.

2. Niigata Iron Works, Niigata, Yechigo-

Wing rope socket.

Sinker bar.

Steel lined jar.

Spuddling bit.

Drilling bit.

Austrial under reamer.

Drive pipe spear.

Steel wire drilling rope,

Socket.

Fishing socket.

Fishing shoe.

Fishing slip shoe.

Horn socket.

Rope Spear.

Temper screw.

Yoshida Sansuke, Shimaneken-

Safety fuse for use dry ground.

Safety fuse for use in wet ground.

Safety fuse for use in water.

Safety fuse for use in strong water.

Safety fuse for submarine use.

GROUP 116.

Minerals and Stones and Their Utilization.

 Amenomiya Wataru, Iwateken—

Pig. Sennin iron.

Iron ore, Sennin iron mine.

2. Chikuzen and Buzen Colliery Owners' Association, Fukuoka-ken—

Coal, 4 ft. seam (Aida province, Chikuzen).

Coal, 5 ft. seam (Aida province, Chikuzen).

Washed coal smalls (Aida province, Chikuzen).

Coal, 8 ft. seam (Mameda province).

Coal, 5 ft. seam (Kunosugotoku).
Coal, 3 ft. seam (Kunosugotoku).
Coal, 4 ft. seam (Hosbin, prov.

Coal, 4 ft. seam (Hoshiu province, Buzen).

Coal, 8 ft seam (Oto province, Buzen).

Coal, 8 ft. seam (Nakatsubara province, Buzen).

Coal, 8 ft. seam (Dainimineji province, Buzen).

Coal, 5 ft. seam (Dainiarase, province, Chikuzen).

Coal, 3 ft seam (Dainiarase, province Chikuzen).

Coal, Yoheda seam (Iwasaki province, Chikuzen).

Coal, Takaye seam (Takye province, Chikuzen).

Coal, Yoheda 5 ft. seam (Koyanose province, Chikuzen).

Coal, 8 ft. seam (Kanada Province, Buzen). Coal, 8 ft. seam (Hokoku Province, Buzen).

Coal, 4 ft. seam (Hokoku Province, Buzen).

Coal, 4 ft. seam (Ootsuji Province, Chikuzen).

Coal, 5 ft. seam (Oonoura Province, Chikuzen).

Coal, 3 ft. seam (Oonoura Province, Chikuzen).

Coal, 4 ft. seam (Katsuno Province, Chikuzen).

Coal, 5 ft. seam (Katsuno Province, Chikuzen).

Coal, Kaigun 8 ft. seam (Shino-yamada Province, Chikuzen).

Coal Chirimen 5 ft. seam (Shino-yamada Province, Chikuzen).

Coal, Muyen seam (Chikuzen). Coal, 5 ft. seam (Akaike Prov-

Coal, 5 ft. seam (Akaike Province, Buzen).

Coal, 5 ft. seam (Fumidana Province, Chikuzen).

Coal, 3 ft seam (Fumidana Province, Chikuzen).

Coal, 5 ft. seam (Hondo Province, Chikuzen).

Coal, 3 ft. seam (Hondo Province, Chikuzen).

Coal 5 ft. seam (Tadakuma Province, Chikuzen).

3. Fujita & Co., Osaka-

Barytic Complex sulphide ore (Kosaka mine).

Pyritic ore (Kosaka mine). Siliceous ore (Kosaka mine).

Gold ore (Zuiho gold mine).

 Furukawa Junkichi, Kojimachi-ku, Tokio—

Chalcopyrite, Daikoku vein, Ashio copper mine.

- Chalcopyrite, Nakahi vein, Ashio copper mine.
- Chalcopyrite, Isudo-Kosei vein, Ashio copper mine.
- Chalcopyrite. Chosei vein, Ashio copper mine.
- Chalcopyrite, Yokomabu-Sango, Ashio copper mine.
- Chalcopyrite, Hoshi vein, Ashio copper mine.
- Bornite, Ashio copper mine.
- Precipitated copper, Ashio copper mine.
- Chalcopyrite, with zinc blende, Ashio copper mine.
- Chalcopyrite, Yokomabu vein Ashio copper mine.
- Chalcopyrite, Yebesu vein, Ashio copper mine.
- Chalcopyrite, Tengu vein, Ashio copper mine.
- General view of Shimoyamada colliery.
- General view of Shiogashira, Katsuno colliery.
- 4 ft. coal, Shiogashira, Katsuno colliery.
- 5 ft. coal, Shiogashira, Katsuno colliery.
- 4 ft. coal, Shiogashira, Katsuno colliery.
- Natural coke, Katsuno colliery.
- Kaigun 8 ft. coal, Shimoyamada colliery.
- Komori 5 ft. coal, Shimoyamada colliery.
- Anthracite coal, Shimoyamada colliery.
- No. 1 coke, Furukawa Coke Manufactory.
- No. 2 coke, Furukawa Coke Manufactory.

- Washed ¼ inch size coal, Furukawa Coke Manufactory.
- Washed 1/8 inch coal, Furukawa Coal Manufactory.
- Chalcopyrite with zinc blende, Shinsei vein, Ashio copper mine
- Chalcopyrite with zinc blende, Kosei Mayehi vein, Ashio copper mine.
- Chalcopyrite with zinc blende, Ashikura vein, Ashio copper mine.
- Chalcopyrite with zinc blende, Rensei vein, Ashio copper mine.
- Chalcopyrite with zinc blende, Nakamine vein, Ashio copper mine.
- Chalcopyrite with zinc blende, Yeisei vein, Ashio copper mine.
- Galena, Kosawa Meisei vein, Ani copper mine.
- Galena, Daira vein, Ani copper mine.
- Chalcopyrite with galena, Daira vein, Ani copper mine.
- Zinc blende, with galena, Kayakusa vein, Ani copper mine.
- Chalcopyritè, Sanmai Shinkiri vein, Ani copper mine.
- Chalcopyrite, Sanmai Iridade vein, Ani copper mine.
- Malachite, Kosawa vein, Ani copper mine.
- Chalcopyrite, Sanmai Odate vein, Ani copper mine.
- Chalcopyrite, Kosawa Meisei vein, Ani copper mine.
- Chalcopyrite, Sanniai Neuma vein, Ani copper mine.

Chalcopyrite, with galena, Ani copper mine.

Chalcopyrite, Ani copper mine.

Malachite, Ani copper mine. Chalcopyrite, with quartz. Kusakura copper mine.

Chalcopyrite, in tuyf, Kusakura copper mine.

Chalcopyrite, Kusakura copper mine.

Native copper, Kusakura mine. Malachite, Kusakura copper

Malachite, Kusakura copper mine. Native copper, Kusakura copper

mine. Chalcopyrite, Kusakura copper

mine. Kusakura copper

Galena, Kusakura copper mine. Hovaite, Kusakura copper mine. Hematite, Kusakura copper mine. Ironpyrite, Kusakura copper mine.

Chalcopyrite, Furokura copper mine.

Argenite, galena, se., Innai silver mine.

Lower grade silver ore, Innai silver mine.

Argentite with quartz, Innai silver mine.

Copperpyrite in ironpyrite, Kune copper mine.

Chalcopyrite, Ani copper mine. Maiachite, Sanmai, Odate, Ani copper mine.

Chalcopyrite, Ashio copper mine. Chalcopyrite, Sanmai, Ani copper mine.

Dry shifted small ore, Ashio copper mine.

Dry shifted fine ore, Ashio copper mine. Dressed nut-size ore from jigger. Ashio copper mine.

Aptite, Ashio copper mine.

Biotite granite, Ashio copper mine.

Limestone, Ashio copper mine. Codierite, Ashio copper mine. Pyroxen andesite, Ashio copper

Clay slate, Ashio copper mine.

Liparite, Ashio copper mine.

Gangue calceite. Ashio copper mine.

Quartz, Ashio copper mine.

Porphyritic granite, Sanwai, Ana copper mine.

Porphyritic granite, Kosawa, Ani copper mine.

Propyrite granite, Sannai, Ani copper mine.

Gangue quartz, Sanmai Shinkiri.

Tuff breccia with fossil Schell, Sanmai Shinkiri Ohate, Ani silver mine.

Brecciated tuff, Kayakusa silver mine.

Rhyolite, Kusakura copper mine. Tuff, Kusakura copper mine.

Brecciated tuff, Kusakura copper mine.

Breccia, Kusakura copper mine. Brecciated tuff, Kusakura copper mine.

Gangue quartz, Kusakura copper mine.

Country rock, tuff, Furokura copper mine.

Gangue, Dog-toothspar, Furokura copper mine.

Gangue quartz, Innai silver mine.

Gangue saccharoidal lime-stone.
Innai silver mine.

Siliconous tuff, Innai silver mine.

Hokkaido Colliery & Railway
 Co., Hokkaido (head office,
 Kyobashi-ku, Tokyo)—
 Cokes, Oiwake Coking Plant.
 Coal, Yubari colliery.

Coal, Sorachi colliery. Coal, Poronal colliery.

Coal, Ikushunbetsu colliery.

6. Horinouchi Shoyemon, Kago, Shimaken—

Gold ores, Okuchi mines. Country rocks, Okuchi mines. Photographs, Okuchi mines. Gold ore, Okuchi gold mine.

7. Imperial Burcau of Mines, Tokyo—

Typical minerals recognized in Japanese mining law.

Collection of copper of principal mines in Japan.

Collection of manganese ores of principal mines in Japan.

Collection of typical coals in Japan.

8. Imperial Geological Survey. Tokio—

Collection of rocks.

Collection of fossils.

Collection of ores.

Typical samples of Japanese soils.

Collection of whetstone. Collection of kaolin.

 Imperial Steel Works, Fuknokaken.

Magnetite.

Micaceous hematite.

Limonite. Limestone.

Dolomite.

Cokes.

 Japan Oil Co., Kashiwazaki, Niigataken—

Engine oil. (Amaze, Yechigo.) Dynamo oil. (Amaze, Yechigo.) Cylinder oil. (Amaze, Yechigo.) Valve oil. (Amaze, Yechigo.) Belt oil. (Amaze, Yechigo.) Spindle oil. (Amaze, Yechigo.) Crude oil. (Amaze, Yechigo). Crude oil. (Nagamine, Yechigo.)

Crude oil. (Urase, Yechigo.)

Crude oil. (Maki, Yechigo.) Crude oil. (Nitsu, Yechigo).

Crude oil. (Akita, Ugo).

Crude oil. (Ishikari.)

Crude oil. (Totomi.) Light oil. (Amaze, Yechigo.)

Lamp oil. (Amaze, Yechigo.) 230 oil. (Amaze, Yechigo.)

Heavy oil. (Amaze, Yechigo.) Vaseline oil. (Amaze, Yechigo.)

Vaseline oil. (Amaze, Yechigo.) Lubricating oil. (Amaze, Yechigo.)

Machine oil. (Amaze, Yechigo.)

 Konishi Ihci, Osaka— Manganese ore, Iwasaki manganese mine.

12. Kwansai Coke Co., Osaka— Cokes.

13. Mitsubishi & Co., Tokio—Coal, Shinniu colliery.

Coal, Numatzuta colliery.

Brecciated Liparite, Arakawa copper mine.

Propyrite, Arakawa copper mine.

Amethyst, Arakawa copper mine. Quartz after barytes, Arakawa copper mine.

Linarite and pyromorphite, Hisaichi copper mine.

Native copper, Arakawa mine. Copperpyrite, with rock crystal, Arakawa copper mine.

Copperpyrite, Arakawa copper mine.

Diorite, with quartz veins, Ikuno silver mine.

Propyrite, with quartz veins, Ikuno silver mine.

Propyrite, with auriferous copper mine veins, Ikuno copper mine.

Scheelite in copper veins, Ikuno copper mine.

Auriferous argentite, Ikuno copper mine.

Argentite, Ikuno copper mine.

Argentiferous copperpyrite and bornite, Ikuno copper mine.

Clay slate, Makimine copper mine.

Slate, with thin layers of pyritic copper ore, Makimine copper mine.

Calcite on copper ore and slates, Makimine copper mine.

Native copper, Makimine copper mine.

Pyritic copper ore, Makimine copper mine.

Brecciated andestite tuff, Osarusawa copper mine.

Tuff shale, Osarusawa copper mine.

Quartz, Osarusawa copper mine. Barytes, Osarusawa copper mine. Native copper, Osarusawa copper mine.

Copperpyrites, Osarusawa copper mine.

Copperpyrites and bornite, Osarusawa copper mine.

Propyritic abdesite, Sado gold mine.

Argentiferous quartz vein, Sado gold mine.

Calcite on marl, Sado gold mine. Auriferous argentite, Sado gold

mine. Argentine with native gold, Sado

gold mine. Auriferous argentite, Sado gold

Coal, Ochi colliery.
Coal, Takashima colliery.
Coal, Hashima colliery.
Coal, Takashima colliery.

 Mitsui Mining Co., Tokio— Coke, Miike Colliery.

Sump coal (4 feet seam) of Tagawa Colliery.

Sump coal (8 feet seam) of Tagawa Colliery.

Sump coal of Yamano Colliery. Sump coal of Miike Colliery.

Nuts and powder of Miike Colliery.

Ag. Cu. and Pb. ore of Kamioka mine.

Lievrite, calcite, azurite, cupriferous calamine, pyromorphite.

Nakano Shiro, Hokkaido—
 Gold sand, Shiribeshi province.
 Gold sand, Ishikari province.

Gold nugget, Ishikari province. Gold sand, Teshio province.

Gold sand, Kitami province.

Gold nugget, Kitami province. Gold sand, Hitaka province. Gold sand, Takachi province. Gold sand, Iburi province.

- Namikawa Yasuke, Kioto— Whetstones of different size.
- 17. Osaka Chemical Industry Co., Osaka—

Cokes.

Coal tar.

Ammonium sulphate.

18. Osaka Whetstone Co., Kitakintaro-machi, Osaka—

Whetstone.

Whetstone, Awase hachikiri.

Whetstone, Otsuki awaseto.

Whetstone, Tajima.

Whetstone, Iyo.

Whetstone, Kijito.

Whetstone, Naguratoishi.

Whetstone, Jiokenji.

Whetstone, Aoto.

Whetstone, Saikito.

Whetstone, Tsushimato.

Whetstone, Amakusa.

Whetstone, Kimura.

Whetstone, Arato sasakuchi.

Whetstone, Arato Hirashima.

Whetstone, Arato Daikuchi.

Whetstone, Arato Aome.

Whetstone, Sasakuchimaruto.

Whetstone, Hirashimamaruto.

Whetstone, Aomemaruto,

 Sunohara Kumajiro, Yehimeken—

Iridosmin stibnite, Kano antimony mine.

Country rock (clay slate), Kano Antimony mine.

Vein stuff, Kano Antimony mine. Liporite, Kano Antimony mine. Stibnite (crystals), Kano Antimony mine.

- Tokunaga Shigeyaru, Tokio— Gold ore, Shikaori.
- 21. Ushio Gold Mining Co., Kagoshima-ken—

Gold ores, Ushio gold mines.

22. Yasukawa Keiichiro, Fukuoka-ken-

Meiji Kankan coal, Meiji Colliery.

Meiji (3 feet coal), Meiji Colliery.

Meiji (5 feet coal), Meiji Colliery.

Akaike (5 feet coal), Akaike Colliery.

GROUP 117.

Mine Models, Map, Photographs.

1. Amenomiya Wataru, Iwateken-

Geological map of Sennin iron mine.

 Chikuzen and Buzen Colliery Owners' Association, Fukuoka-ken—

Map of coal fields.

Photographs.

Sections of coal seams.

Photographs of Kosaka mine.

Album of Kosaka mine.

- 3. Formosan Government, Taihoku-
 - Map showing geological and mineral products. (Installed in Japan section, Palace of Agriculture.)

 Furukawa Junkichi, Tokio— Photographs.

General view of reduction work. Innai silver work.

Amalgamation plant in the reduction work, Innai silver mine.

Concentrator, Innai silver mine. Tailing from settler, Innai silver mine.

Model, silver bullion, Innai silver mine.

Model, system of vein, Ashio copper mine.

Model, ore dressing plant, Tsuto, Ashio copper mine.

Photographs:

General view of Furukawa coke factory.

Coke ovens in Furukawa coke factory.

Coal washing plant in Furukawa coke factory.

Tuff breccia, Daira, Ani copper mine.

General view of ore dressing works, Furokura copper mine.

General view of ore dressing works, Kusakura copper mine. Slime concentrater in Honzan,

Ashio copper mine. Interior view of Kotaki concen-

trator works, Ashio copper mine.

Makomato settling and filtering ponds, Ashio copper mine.

Nakasai settling and filtering ponds, Ashio copper ponds.

Kotaki settling and filtering ponds, Ashio copper mine.

General view of ore dressing works, Innai silver mine.

Interior view of ore dressing works, Innai silver mine.

Above photographs in all.

Dressed pea-size ore from jigger, Ashio copper mine.

Dressed ore from jigger, Ashio copper mine.

Concentrates from Wilfrey table, Ashio copper mine.

Waste from jigging small ore, Ashio copper mine.

Waste from jigging fine ore, Ashio copper mine.

Waste from Wilfrey table slime, Ashio copper mine.

Dressed ore from jigger, Furokura copper mine.

High grade selected ore, Innai silver mine.

Low grade selected ore, Innai copper mine.

Dressed ore from jigger, Furokura copper mine.

General view of Honzan Ashio copper mine.

General view of Kotaki Ashio copper mine.

General view of Tsudo Ashio copper mine.

General view of Kusakura copper mine.

General view of Ani copper mine.

General view of Kune copper mine.

Rock drill in execution.

Ashio copper mine headgear for Yamaichi shaft Innai silver mine.

Interior view of Mato hydroelectric power station, Ashio copper mine.

- Interior view of Kakemidzu hydro-electric power station, Ashio copper mine.
- General view of Kabayama hydro-electric power station, Innai silver mine.
- Interior view of Kabayama hydro-electric power station, Innai silver mine.
- Tarbin and regulator in Kabayama hydro-electric power station, Innai silver mine.
- Photographs of entrance of Tsuto level, Ashio copper mine.
- Aerial tramway, Ashio copper mine.
- The electric tramway, Ashio copper mine.
- General view of aerial tramway. station, Furokura copper mine.
- Hokkaido Colliery and Railway Co., Kyobashiku, Tokyo—
 - Geological maps of Fubari Colliery.
 - Geological maps of Sorachi Colliery.
 - Geological maps of Poronai and Ikushumbeten colliery.
 - Map of Japan and Hokkaido.
- 6. Horinouchi, Shoyemon, Kago-Shimaken—
 - Photograph of Okuchi gold mine.
- 7. Imperial Geological Survey, Tokio—
 - Comprehensive map of the oil producing locations in Japan.
 - Model of Bandai volcano before and after its eruption.

- Orographical and bathymetrical maps of Japan.
- General geological maps of Ja-
- General topographical map of Japan.
- Topographical and geological map in detail.
- Geological and topographical map of the oil fields, sections 1 and 2.
- Geological and topographical reconnoissance maps of Japan.
- Agronomic reconnoissance maps of Japan with tables.
- Agronomic maps of Tokio-fu, Kanagawa-ken, Hyo g o-k e n, Nagasaki-ken, Osaka-fu and Oitaken.
- Geological and topographical map of the oil fields, section 3.
- 8. Japan Oil Co., Niigata-ken— Photographs.
- Mitsubishi & Co., Tokio— Relief of Takashima coal mine. Section of coal formation.
- Mitsui Mining Co., Tokio— Model of manda Rit of Miike Colliery.
- Mitsui Mining Co., Tokio— Photographs of the Miike colliery.
 - Photographs of the Tagawa colliery.
 - Photographs of the Yamano colliery.
 - Photographs of the Kamioka mine.
 - Photographs of the Tsurugizan mine.

Photographs of Iwanobori mine. Special photographs of Miike colliery.

Geographical maps of Miike colliery.

Geographical maps of Tagawa colliery.

Geographical maps of the Yamano colliery.

- Murakami Sanzo, Niigata-ken. Photographs.
- 13. Nakano Shiro, Hokkaido— Map.
- Niigata Iron Works, Niigata— Photographs.
- 15. Yasukawa Kciichiro, Fukuoka-ken-

Topographical and geological map of Meiji and Akaike collieries.

GROUP 118.

Metallurgy.

1. Fujita & Co., Osaka-

Model of Kosaka smelting and refining works.

Copper ingot, Kosaka mine.

Cathode ingot, Kosaka mine.

- Gold and silver bullion, Kosaka mine.
- Furukawa, Junkichi, Tokio— Liparite used as liming of converter.

General view of smelting works, Ashio copper mine.

Interior view of smelting works, Ashio copper mine.

Interior view of bessemerizing works, Ashio copper mine.

Selecteur showing the manner of working, Ashio copper mine.

Air compressor for bessemerizing by steam engine, Ashio copper mine.

Air compressor for bessemerizing by hydraulic engine, Ashio copper mine.

Interior view of desulphurizing tower, Ashio copper mine.

General view of smelting works, Furokura copper mine.

Interior view of smelting works, Anj copper mine.

General view of smelting works, Kusakura copper mine.

Roasted small ore, Ashio copper mine.

Photographs.

Roasted fine ore, Ashio copper mine.

Matte from pyritic smelting, Ashio copper mine.

Matte inclosing fine ores, Ashio copper mine.

Slag from pyritic smelting, Ashio copper mine.

Slag from roasted ore smelting, Ashio copper mine.

Ashio Bessemer copper as material for electrolytic-refining, Furokura copper mine.

Ani blister copper as material for electrolytic refining, Furokura copper mine.

Photographs: General view of Furukawa copper works.

Wire mille in Furukawa copper works.

Reverberatory furnaces in Furukawa copper works.

- Electrotypic vats in Furukawa copper works.
- B. W. G. 4-o. Electrolytic wire, Furukawa copper works.
- B. W. G. 1-0, Furukawa copper works.
- B. W. G. I, Furukawa copper works.
- B. W. G. 2, Furukawa copper works
- B. W. G. 3. Furukawa copper works.
- B. W. G. 4. Furukawa copper works.
- B. W. G. 5. Furukawa copper works.
- B. W. G. 6. Furukawa copper works.
- B. W. G. 7. Furukawa copper works.
- B. W. G. 8. Furukawa copper works.
- B. W. G. 9. Furukawa copper works.
- B. W. G. 10. Furukawa copper works.
- B. W. G. 11. Furukawa copper works.
- B. W. G. 12. Furukawa copper Works.
- B. W. G. 13. Furukawa copper works.
- B. W. G. 14. Electrolytic wire, Furukawa copper works.
- B. W. G. 15. Furukawa copper works.
- B. W. G. 16. Furukawa copper works.
- B. W. G. 17. Furukawa copper works.
- B. W. G. 18. Furukawa copper works.

- B. W. G. 19. Furukawa copper
- B. W. G. 20. Furukawa copper works.
- B. W. G. 21. Furukawa copper works.
- B. W. G. 22. Furukawa copper works.
- B. W. G. 23. Furukawa coopper works.
- B. W. G. 24. Furukawa copper works.
- Trolley wire, Furukawa copper works.
- B. W. G. No. 17. Silicon bronze wire, Furukawa copper works.
- Ingot (Marugata) Furukawa copper works.
- Ingot (Kakugata) Furukawa copper works.
- Anode, Furukawa copper works. Cathode. Furukawa copper works.
- Electrolytic bar, Furukawa copper works.
- Tile, large and small, Furukawa copper works.
- Blue vitriol, Furukawa copper works.
- Copper band, Furukawa copper works.
- 3. Higuchi, Hikovemon, Osaka, Iwatsubo Gohei, Kioto-
 - Gold leaf, class 1.
- Gold leaf, class 2.
- Gold leaf, class 3.
- Gold leaf, class 4.
- Gold leaf, class 5. Gold leaf, class 6.
- Gold leaf, class 7.
- Gold leaf, class 8.
- Gold leaf, class 9.

Gold leaf, class 10 Gold leaf, class 11. Gold leaf, class 12. Silver leaf, class 1. Silver leaf, class 2. Silver leaf, class 3. Auriferous silver leaf. False gold leaf, class 1. False gold leaf, class 2. False gold leaf, class 3. Ammonium leaf. False gold leaf, class 4. Tin leaf. Iriboku, class 1. Iriboku, class 2. Iriboku, class 3. Iriboku, class 4. Copper powder, class 1. Copper powder, class 2. Copper powder, class 3. Copper powder, class 4. Copper powder, class 5. Copper powder, class 6. Copper powder, class 7. Copper powder, class 8. Copper powder, class 9. Copper powder, class 10. Copper powder, class 11. Copper powder, class 12. Copper powder, class 13. Gold thread, A No. 8. Gold thread, A No. 13. Gold thread, A No. 15. Gold thread, B No. 6. Gold thread, B No. 16. Gold thread, C No. 8. Gold thread, C No. 13. Gold thread, D No. 8. Gold thread, D No. 12. Gold thread, 13. Gold thread, 14. Gold thread, 16.

Gold thread, E No. 8. Gold thread, E No. 10. Gold thread, 12. Gold thread, 13. Gold cloth, No. 1. Gold cloth, No. 2. Gold cloth, No. 3. Gold cloth, No. 4. Gold cloth, No. 5. Gold cloth, No. 6. Covering of walls.

4. Imperial Steel Works, Fukuoka-ken—

Flat bars. Round bars. Square bars. T bars. Triangular bars.

Light bars.

Sixty-pound rail. I bars.

U bars Steel plate.

Samples taken at different stages in the process for manfacturing light rails, etc. Various test pieces.

5. Mitsubishi & Co., Tokio--

Copper ingot, Arakawa copper mine.

Copper, Makimine copper mine. Copper, Auriferous, Osarusawa mine

Copper cathodes, Isaka Electro-Refining Co.

Copper slabs, Osaka Electro-Refining Co.

Anodes, Osaka Electro-Refining

Blue vitriol, Osaka Electro-Refining Co.

Electro-deposited gold, Osaka-Electro-Refining Co.

Electro-deposited silver. Osaka Electro-Refining Co.

Copper ingot, Hisaichi copper mine.

Auriferous and argentiferous ingot, Ikuno silver mine.

- 6. Mitsui Mining Co., Tokio—
 Copper ingot of Kamioka mine.
 Copper ingot of Mozumi mine.
 Lead pig of Kamioka mine.
 Lead pig of Mozumi mine.
 Silver ingot of Kamioka mine.
 Bismuth of Kamioka mine.
 Bismuniferous litharge and silver of Kamioka mine.
- 7. Sunohara Kumajiro, Yehimeken—

Antimonium

smelting works.

crudum.

Saijo

Refined antimony, Saijo smelting works.

8. Niigata Iron Works, Niigataken—

Model of oil furnace in the Smithy.

GROUP 119.

Literature of Mining, Metallurgy, Etc.

1. Chikuzen and Buzen Colliery Owners' Association, Osaka—

Statistics.

- 2. Fujita & Co., Osaka— Diagram of Kosaka mine.
- Hokkaido Colliery and Railway Company, Hokkaido— Statistical table.
- 4. Imperial Bureau of Mines, Tokio-

Maps, diagrams, tables, etc., illustrating mineral industry of principal minerals.

Notes on the mineral industry of Japan.

5. Mining Institute of Japan. Tokyo—

Journal of Mining Institute of Japan, 12 vols.

6. Nakano Shiro, Hokkaido— Statistics.

CHAPTER XII.

DEPARTMENT OF FISH AND GAME.

Introductory Remarks.

I. Fish.

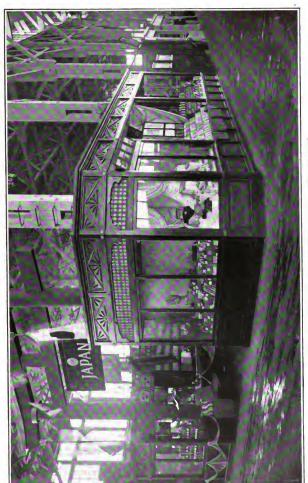
As regards our exhibits pertaining to fishery and the fishery industry, the Japanese Commission to the World's Fair, with the consent of the Department of Agriculture and Industry, decided to accept only those articles belonging to either one of the following items:

- 1. Net-fishing gear and angling gear.
- 2. Salt-preserved fish, smoked fish, canned fish, and bottled fish.
- 3. Fish oil, cod oil, and the like.
- 4. Kanten and Funori.
- 5. Pearls, corals, shells, and their manufactures.

Besides restricting the kinds of articles to be exhibited, the Commission nominated the exhibitors from among those who are considered able to make the best exhibition. There are also articles exhibited by local governments and municipalities, beside those by private individuals.

The marine fauna and flora in the Japanese waters are much varied and very plentiful in kinds. The most useful kinds in the northern part of the Empire are herring, cod, kombu (Laminaria), funori (Gloiopellis), etc. In the southern waters are found sardine, anchovy, mackerel, bonito, tunny, yellow-tail, tai (Pagrus), flat-fish, shark, ayu (Plecoglossus), squid and calamary, clams, oysters, prawns, shrimps, seacucumber, precious corals, tengusa (Gelidium), amanori (Porphyra), etc. The fauna and flora of the Japan Sea differ greatly from those of the Pacific.

The fresh water fishery is not so important as the pelagic fishery, as there are only a few large lakes and rivers. In the warm seasons nearly the whole coast of the Empire is washed by the *Kuroshiwo* (black current) and its branches. Thus, the important migratory fish of the southern waters are caught in the northern part of Honshu (Main Island) and in the shores of Hokkaido, late in the summer and in the



FISHERY EXHIBITS OF JAPAN-PALACE OF FORESTRY, FISH AND GAME.

fall. In winter and spring, the Kuriles, Hokkaido, the northeastern and northwestern coasts of Honshu are washed by the Oyashiwo (cold current) and its branches.

The temperature and specific gravity of water at the beginning of each season on five different coasts are as follows:

	Specific	Gravity	·		Temperature			
Feb.	May.	Aug.	Nov.	Feb.	May.	Aug.	Nov.	
Same1.0259	1.0253	1.0260	2.0249	7.5°C	9.5°C	17.7°C	14.7°C	
Ogi1.0259	1.0254	1.0225	1.0239	10.6°C	13.5°C	23.5°C	19.1°C	
Ofunakoshi1.0262	1.0256	1.0224	1.0236	14.4°C	16.1°C	23.6°C	22.9° C	
Shiwonomisaki .1.0258	1.0232	1.0220	1.0237	15.1°C	18.0°C	25.0°C	21.7°C	
Hoshoshima1.0260	1.0255	1.0200	1.0239	17.0°C	18.5°C	22.7°C	21.7°C	

Fishermen.—The number of professional fishermen amounts to 939.893, while some 1,402,833 are engaged in farming or some other business along with fishery. The number of fishing vessels amounts to over four hundred thousand. These figures are very large, but in view of the fact that our Empire consists of many islands, having a total coast line of more than thirty thousand kilometers, they are not wonderful.

Fishing Gears.—As our coasts were richly supplied with fish, it was not necessary to go far for fishing. Hence, our fishing implements and boats have been confined to those which could be safely used only near the coast. But, as the result of overfishing, the important kinds of fish have been decreasing, while at the same time the number of fishermen and the demand for fish have been increasing, so that it has lately become necessary to seek fishing grounds in the waters comparatively distant from the shores.

Accordingly, several kinds of drift-nets and purse-seines have come into general use for the purpose of off-shore fishing. Consequently, the materials for making fishing gear now include cotton, yarn, flax, Manila hemp, etc., whereas in former days we used only hemp, silk, and rice straw. Meanwhile, the fishermen have begun to pay much attention to the preservation of gears, resulting in the introduction of many kinds of preservatives.

Fishing Boats.—Generally speaking, our fishing boats are small, and are especially constructed to enable them to be hauled up on the

shore. Their forms and construction are entirely different from those common in Western countries. Their lengths are varied between twenty to fifty feet, and their width between five to eleven feet. The cost of making one boat is from fifty to six hundred *yen*. Though suited for coast fishing, they are obviously unfitted for pelagic fishing. Thus, the improvement of fishing boats has of late years become a matter of importance.

The following table shows the number of fishing boats of different sizes for three consecutive years:

	No. of boats over 30 ft. in	No. of boats under 30 ft.	No. of boats under 18 ft.	Total No. of	
Year.	length.	in length.	in length.	boats.	
1899	17.047	17,682	17,395	418,752	
1900	69,036	71,482	85,174	422,523	
1901	322,670	333.359	333,570	436,139	

In 1891, the number of fishing boats with length of 30 feet or more was 7,960; under 30 feet, 44,188, and under 18 feet, 329,325. When we compare these figures with those for 1901, we see that the increase of the boats over 30 feet in length is much greater than of those under 18 feet. So, we may say that there is a tendency to increase the size of boats.

Since the Government made a law for the promotion of off-shore fishing, in 1897, schooners and steamers have come into use for whaling, sealing, long-line fishing, etc. The number of these vessels amounts to thirty-two, with a tonnage of 2,122.

Utilization of Fishery Products.—Fish are sold fresh in enormous quantities in Japan and fresh-fish markets are extended year by year, as the conveniences of transportation increases. We also preserve a large quantity of fish, and utilize many kinds of fishery products to a degree not excelled by any other country. Amongst these, the utilization of algae is most remarkable. Our most important sea-weeds are kombu (Laminaria), amanori (Porphyra), tengusa (Gelidium) and funori (Gloiopeltis). A greater portion of the dried kombu is exported to China as a food-stuff. Tengusa is used to make what is called kanten (which may be seen among the exhibits). The kanten is also exported to China and other countries in large quantities. Amanori is

made into sheets like paper and dried. The dried amanori is called hoshinori and is considered a great delicacy. Funori can also be made into sheets the same way as honshinori. It is used for starch only.

The methods of curing fishery products have greatly improved in recent years. This is especially seen in the canning business, which was introduced some thirty or forty years ago and has grown rapidly since the Japan-China War. A little more than five million pounds of fish and shellfish are canned annually.

Brine-salting or curing fish in strong brine has also been introduced lately, the salting of fish having formerly been confined mostly to dry salting. This has made it necessary to improve our salt industry in order to get a better quality of salt. Many improvements have already been made in this direction.

Fishery Foreign Trade.—As to our export trade, dried cuttle-fish, dried sea-ear, dried sea-cucumber, dried shark's fin, dried kombu and kanten, are the most important articles going to China. Our export of fishery products has been in prosperous condition, the exports always exceeding the imports. The total export to China has increased three million yen within the last ten years. Fish oils, including herring, sardine, shark-liver, cod-liver and whale oil are exported to Europe in large quantities.

Pisciculture.—Pisciculture or acquiculture in Japan includes the culture of fish, shellfish, reptiles and even algae. Some of these have been cultivated from ancient times. Among these are the gold-fish, carp, eel, grey mullet, oyster, pearl-oyster (Avicula), ark-sheels (Arca), agemaki (Siliquaria), soft-shell turtle or snapping turtle, and amanori (an alga of the genus Porphyro). Most of them are cultivated in ponds, either of fresh or brackish water, except shellfish and alga, which are cultured in bay or creek. We have raised so many varieties of gold-fish that we have now our own races quite different from their originals, which are said to have been introduced from China. Oyster culture has also been so improved that it is now successfully carried on even in the deep muddy bottom, where it would be quite impossible to raise a single oyster in an ordinary way. The cultivation of amanori (Porphyra), which is known only in Japan, is extensively

carried on in the Tokyo Bay and the Sea of Hiroshima-ken. This sea-weed is collected by means of the trees or bamboos with branches, driven in the sandy flats which are exposed at the time of the ebb-tide. To these the spores of the alga attach themselves and grow. These trees or bamboos are renewed every year. Funori (Goloiopellis) is also cultivated in a primitive but effective method in some parts of the country. This is done simply by throwing stones in the shallow water to give the alga a place to grow on.

Carp culture is the most popular of the artificial fishing industries. It is carried on to a large extent in ponds and sometimes even in rice-fields. The culture of the soft-shell turtle is limited to one place in the suburb of Tokyo. This is a most trying business and needs great skill.

The artificial propagation of Salmonidae has also been practiced. In the year 1878, the Agricultural Bureau collected the eggs of salmon in certain rivers in Niigata-ken, Nagano-ken, Ibaraki-ken and Hokkaido, and distributed 356,500 fry into many rivers and lakes. In the years from 1879 to 1890, fry to the number of 480,000; 870,000; 430,000; 796,000; 510,000; 801,000; 780,000; 660,000; 459,000; 2,005,000; 1,200,000; 1,130,000, respectively, were put into the rivers and lakes, but without much success. Only in Lake Chujenji, in Nikko, a good result was obtained. In this lake where there was not a single fish eatable before the propagation of salmon, the condition has so changed that the lake now supplies an abundance of delicious fish and affords excellent sport for tourists.

In 1890, the central Government discontinued hatchery work, with the only exception of one hatchery at Niigata-ken. At this hatchery American salmon eggs were once hatched and one thousand fry were liberated. The hatchery at Hokkaido is doing the most extensive work. The model and photographs of this hatchery are among our exhibits in this department. The following table shows the number of salmon fry liberated during the years 1892-1902:

Hatchery.	1892.	1893.	1894.	1895.	1896.	1897.
Hokkaido	. 3,526,415	7,355,640	2,700,729	8,540,178	6,984,178	3,815,558
Niigata-ken	. 957,825	1,534,968	1,557,832	3,221,321	1,549,431	979.820
\kita-ken					404.952	368,592

Total.....4.484,240 8,890,608 4,258,561 11,761,919 8,938,598 5,164,360

Hatchery. 1898.	1899.	1900.	1901.	1902.
Hokkaido	2 10,453,486	10,190,365	12,665,214	
Niigata-ken1,000,00	2,752,145	2,854,197	4,330,992	2,594,170
Akita-ken 339,46	6 168,756	334,394	340,000	384,758
Total9,220,68	8 13,374,387	13,378,946	17,336,206	2,978,928

Scientific Researches.—Preliminary investigations into our fisheries began in 1888, and were finished in 1891. The Fish Commission was chosen in 1893, to carry on a more extensive investigation into all branches of the fishing industry. This Commission was continued until 1898. In that year the present Fishery Bureau was organized, which carried on more scientific and systematic investigation. Since 1899, investigations concerning hydrography and plankton have been made. This work has also been executed occasionally in the sea from on board a steamer. Beside these there is the Marine Biological Station, which is solely devoted to the study of fish.

Fishery Laws.—As a result of these efforts to improve the fishing industry, it became necessary to restrict the catching of fish within certain limits. Hence, the Fishery Law was passed in 1901, and went into effect in July, 1902.

Fishery Experimental Stations.—While these things are carried on by the central bureau, the Government has for a number of years encouraged the starting of local experimental stations and has given a subsidy to each station. As a result, there are now thirty-two experimental stations distributed among thirty-one prefectures. The annual expenditure of these amounts to more than 227,000 yen, of which the Government pays 49,800 yen as bounty.

Educational Institutions.—For the purpose of realizing the permanent improvement of the fishery industry the Government has encouraged the starting of fishery schools in the different parts of the country. It also founded a school at Tokyo, in 1897, called the Suisan Koshujo, or the Fishery Institute. The school was first started by the Fishery Society of Japan, in 1889, with subscribed funds. The Government helped the school, giving an annual subsidy of six thousand yen from 1893 to 1897. In 1897 the school became a public institution under the direct control of the Government. Thirty-four other fishery schools of

various grades, located in twenty-one different prefectures, have been started at the expense of local Governments or counties or towns.

At some of the fishery experimental stations, lectures are given on subjects relating to the fishing industry.

Private Associations.—There are a few associations organized with the aim of uniting those interested in the fishing industry and of studying all important subjects in connection with fisheries. Among these, the Fishery Society of Japan is the oldest organization. It was founded in 1881, and now has 4,979 members. It has done a great deal in bringing our fisheries into their present state of prosperity and has helped the official enterprises in many respects. The society publishes a monthly journal.

There is another association called the Society of Salt Industry of Japan, which devotes itself to the improvement of our salt industry. It was organized in 1896 and also publishes a monthly journal for its 1,500 members. Both of these organizations are located in Tokyo.

TABLE OF THE VALUE OF THE TAKES FROM 1899 TO 1901.

	1899.	1900.	1901.
Species.	Value Yen.	Value Yen.	Value Yen.
Herring	. 7,417,402	7,144,072	7,847,280
Sardine	. 6,537,377	7,310,120	7,393,415
Bonito	. 3,931,974	4,365,887	3,114,608
Tai (Pagrus)	. 3,316,733	4,109,802	3,258,490
Mackerel	. 1,934,091	2,159,018	1,848,173
Yellow-tail	. 1,683.773	2,224,297	2,086,329
Squid	. 1,355,613	1,562,951	1,787,886
Tunny	. 1,327,268	1,814,704	1,808,750
Cuttle-fish	. 1,136,495	1,136,710	1,622,731
Prawns	. 1,095.485	1,345,340	1,385,039
Salmon	. 990,534	1,152,678	1,234,811
Kombu (Laminaria)	. 730,511	602,777	928,164
Sea-ear	. 545,366	508,478	529,640
Ayu (Plecoglossus)	445,398	449.213	570.057
Shark	. 421,508	449,442	372,322
Cod	. 291,847	372,827	494,999
Oyster	. 187,039	190,091	195,315
Sea-cucumber	. 160,148	174.794	202,092
Tengusa (Gelidium)	. 154,563	258,305	250,561
Clams	. 119,870	93.305	118,102
Others	. 18,271,259	19,408,339	18,404,780
Total	. 52,054,254	56,833,150	55,453,544

TABLE OF THE FISHERY PRODUCTS FROM 1899 TO 1902.

	SPECIES.	18	99	190	00	1901		
	SPECIES.	Quantity	Value	Quantity	Value	Quantity	Value	
- 1		Pounds	Yen	Pounds	Yen	Pounds	Yen	
	Bonito, dried	11.466.050	3.376.663	16.497.167	4.881.303	11.526.050	3.642.408	
	Anchovies, boiled							
	and dried	14.293.392	1.449.832	26.158.758	2.138.777	21,440.708	1.608.32.	
	Sardines, dried	21-801.925	963.933	20.799.900	941.603	12.831.742	750.883	
	Sardines, salted	21.058.133	686.728	18.334.433	619.263	19.642.130	592.785	
	Mackerel, salted	12.965.283	566.934	11.755.675	556.357	12.668.592	586.45	
1	Salmon, salted	8.061.392	451.186	9.426.617	523-335	8.876.208	526.516	
	Yellow-tail, salted	6.109.192	969.816	6.510.367	435.898	6,906.192	352.479	
H	Tunny, salted	4.596.150	276.671	1.370.792	288,809	1.881.192	415.585	
П	Tunny, dried	2.420.500	350.531	1.823.733	79.008	3.069.917	187.53	
П	Cod, salted,	1.195.422	129.512	2.710.025	\$5.651	3.253.708	31.96	
	Hoshinori (dried							
I	porphyra)		510,641		513.947		803.54	
	Cuttle-fish dried	14.107.583	2.043.540	13,879.108	2.465.004	18.462.375	2.789.47	
	Kanten (Scaweed			ì				
	isinglass),	1.863.433	866.530	2.370.517	1.153.003	2.177.867	1.068.46	
	Kombu (dried							
	Laminaria),	58.929.983	834.664	53.750.650	602.777	76.806.975	928.16.	
1	Prawns, dried	5.484.725	605.517	4.954.500	681.356	5.565.392	701.70	
П	Sea-ear, dried	1.423.550	500.465	1.079.625	406.549	1.195.300	. 447-73	
	Anchovies, dried	8.602,233	434.991	4.766.608	277.085	4,484.033	238.49	
I	Cod, dried	1.255.417	70.200	1.201.825	131.775	8.914.936	421.25	
I	Sea-cucumber,dried	1.045.867	285.645	784.508	206.757	665.575	168.72	
`	Shark's Fin, dried	886.175	227.268	831.867	264.171	768.266	140.64	
(Fish Guano	396.8t 2.842	7.358.146	317.890.208	7.058.117	243.080.850	7.218.45	
1	Dried Sardines	31.027.817	832.854	33.691.817	1.400.319	23.497.250	767.83	
{	Fish Oil	11.337.675	295.733	13.994.258	399.648	14.497.475	412.44	
ľ	Others		8.554'093		8.402 679		7.268.65	
	Total		32.142.098		3.481.191		32.071.02	

II. Game.

As the country, consisting of small islands and having a comparatively narrow breadth, does not abound in large mountains and valleys, the varieties of game are limited. Japan has a thoroughgoing system of protecting game. Some kinds of birds are protected with special care, as their existence is of great benefit to the farming and forest industries.

It was in 1873 that a regulation for shooting and hunting was promulgated. These rules had undergone repeated amendments till they finally took shape in the present Game Law that was promulgated in 1001.

The fluctuation in the number of licenses granted during the recent seven years is shown in the following table:

Year.	License. Class A.	Class B.
1895.	16,376	125,189
1896	16,991	141,556
1897	16,609	174,334
1898	17,198	178,130
1890	16,966	199,808
1900.	16,918	202,862
1901,	11,102	102,265
1902	15,789	123,519

NOTE.—Licenses of class A are issued to those who use firearms, while licenses of class B are issued to those who adopt other methods of killing or capturing game.

The provisions regarding game preserves were first enacted in the present law. These preserves number 58 in all, and have a tendency to increase. The total number of common game preserves is 20, of which 13 existed under the old rules and the rest according to the new.

The new law has proved effective in checking the reckless destruction of birds due to the enormous number of sportsmen in the country, as is shown in the foregoing table, which records the sudden fall of the number of shooters by about 50 per cent during the last two years. However, no conclusive result can be arrived at on this point until the lapse of several years more.

Several other new provisions were enacted by the new law, such as the absolute prohibition both of shooting and hunting in the breeding season, the establishment of game preserves and other such restrictive measures. In the future, therefore, the breeding of birds will be more satisfactory than it was during recent years.

Exhibits.

GROUP 120.

Hunting Equipment.

 Imperial Forestry Bureau, Department of Agriculture and Commerce, Tokyo—

Plan of imperial wild duck preserve at Shinhama.

Skins of wild ducks.

Skin of hawk.

Sportsmen's equipment for wild duck hunting.

Photos.

GROUP 121.

Products of Hunting.

- Fujikawa Bros., Hokkaido— Furs and skins of ermines, foxes, badgers, bears, squirrel and other wild animals.
- 2. Koga, Tatsushiro, Okinawaken---

Down of sea birds, "Ahoudori."

- Matsushita Kumatsuchi, Hakodate—
 - Skins of sea otters, seals, colored skins of the same; sea leopards, ermines, yellow ermines, red foxes, white foxes, badgers, beavers and colored skins of the same; weasels and their colored skins.
- Nishimura, Chojiro, Tokyo— Furs and skins of ermines, weasels, big badgers, foxes, badgers, wild cats, etc.

GROUP 122.

Fishing Equipment and Products.

 Hokkaido Flax Manufacturing Co., Sapporo—

Flax nettings:

No. 16—5 cord mesh; 6 inch stretched; depth, 50 meshes.

No. 16—6 cord, mesh; 7 inch stretched; depth, 60 meshes.

No. 16—7 cord, mesh; 7 inch stretched; depth, 50 meshes.

2. Imperial Fisheries Bureau, Tokio—

Specimens of:

Sardines and anchovies,

Chub mackerel.

Corals,

Prawns,

Growth of "Tai" (Pagrus),

Oysters.

Crabs, stuffeal,

Illustration of corals.

Illustration of prawns.

"Aguri-ami" (a kind of purse-

seine) improved.
"Aguri-ami" in use (photos).

Tunny drift-net.

Tunny long line.

Tunny long-line fishing (photos).

Yellow tail hand-line fishing (models and photos).

"Tai" Shibari-ami (a scare-cord seine (photos).

Trawler (model).

Shark long line boat (model).

Tunny long line boat (model).

Bonito hand line boats (models).

Fishing boats (models) of Chiba and Kumamoto fishing experimental stations.

Maps showing the distribution of important fish.

Statistics relating to fishermen.

- 3. Ishii, Kotaro, Osaka— Cotton nettings.
- 4. Japan Hemp and Flax Manufacturing Co., Tokio—

Flax nettings for red salmon and long salmon.

 Kioto Fishing Line Manufacturers' Association, Kioto— Fishing lines.

Tsurimagai.

2 cords, water-proof.

3 cords, water-proof.

Katayori cord, water-proof.

3 cords Kimagai, water-proof.

2 cords Kimagai.

 Local Government of Hokkaido, Hokkaido—

Herring fisheries (photo).

Specimens of:

Herrings, Fat herrings,

Cod,

"Suketodara" (Gadus Chalcogramnes, Pall).

 Nakamura, Rikichi, Tokio— Fishing rods for salmon and trout reels.
 Fishing rods.
 Fishing lines.

- 8. Okajima Tsunegoro, Kioto-Silk dip nets.
- Yamanouchi Jisuke, Kioto— Artificial flies.
 Eishbooks

GROUP 123.

Products of Fisheries.

1. Black Coral .and Sea-Pen Manufacturers' Association, Tottori-ken—

Black coral works. Walking sticks. Picture frames.

Cigarette holders.

- Chhoa-kim, Formosa—
 Canes, made of the stem of seapen.
- Fishery School of Ishikawaken, Ishikawaken—
 Deviled crab.
- Fishery School of Yamaguchiken, Yamaguchiken— Canned prawns.
- Fishing Experimental Station of Aichiken, Aichiken—
 Salt sardines.
 Sardines in oil.
- Fishing Experimental Station of Akitaken, Akitaken— Red herring.
- Fishing Experimental Station of Chibaken, Chibaken— Salt anchovies.
 Anchovies in oil.
- Fishing Experimental Station of Hokkaido, Hokkaido— Salt herrings.
- Fishing Experimental Station of Kagawaken, Kagawaken. Grey-mullet in oil.
- Fishing Experimental Station of Kochiken, Kochiken—
 Salt mackerel.

11. Fishing Experimental Station of Kumamotoken, Kumamotoken—

Pickled eels in jelly.

12. Fishing Experimental Station of Miyeken, Miyeken—
Canned clams.

Fishing Experimental Station of Wakayama-ken, Wakayamaken—

Fish in pickle.

 Fishing Experimental Station of Yehimeken, Yehimeken— Mackerel in oil.

15. Funabashi Fnknmatsu, Osaka-

Shell buttons.

16. Hara Tameji, Osaka— Shell buttons.

 Harumoto Jisuke, Osaka— Cod liver oil.
 Oil for watch movements.

18. Kashiwai, Inzumi, Formosa— Top shells.

 Hatakeyama Yunosuke, Ishikawaken—
 "Maki Buri."

20. Hemmi Tetsuji, Tokio— Canned oysters.

21. Hoko Gikwai, Tokio-Clip fish.

22. Ito Sentaro, Osaka— Cod liver oil.

23. Japan Pelagic Fishing Co., Yamaguchiken— Whale oil.

24. Kawaguchi Gennosuke, Osaka Corals, coral works, necklaces, bracelets Kho-lien-seng, Formosa— Top shells.

26. Koga Tatsnshiro, Okinawa-

Shells, top shells. Pearl oysters. Hoop shells. Trumpet shells. Pearls.

27. Koma, Kawashima; Nagaoka; Taketa, Shimaneken— Black coral.

Black coral works.
 Canes.

28. Masmaga Sankichi, Formosa. Top shells. Cigarette holders. Shawl pins, etc.

29. Mikimoto, Kokichi, Miyeken—

Pearls, cultivated. Pearls, natural.

Bracelets.

Brooch.

Scarf pins. -Blisters.

Specimens of pearl oysters preserved in alcohol.

Pearl oyster culture ground, drawing.

30. Nagashima Ushitaro, Tokio-Fu-

Green turtle soup.

31. Nakamura, Gisnke, Osaka—Shell buttons for ladies.

Coat buttons.

Underwear buttons.

Hat buttons.

Glove buttons.

Collar buttons.

Shirt studs.

Specimens of shells showing the process of button making.

32. Nakamura, Sanpei, Kobe—
Shell buttons, first and second

class, 2 or 4 holes and other kinds.

Materials of shell buttons.

Hoop shells.

Pearl oysters.

Ear shells.

River mussels.

Spindle shells.

Top shells, etc.

33. Nishibata. Tomonosuke, Osaka—

Cod liver oil.

34. Noshiro Jitsugyokwai, Akitaken-

Red herring.

35. Oguri Kanpei, Osaka— Coral works.

Mantel ornaments, representing birds, flowers, etc.

Statues, etc.

Bracelets.

Brooches

Ono Cho, Formosa—
 Top shells.

37. Osaka Funori Merchants' Association, Osaka—

"Hoso-kanten."

38. Osaka and Kioto Kanten Manufacturers' Association, Osaka—

"Hoso-Kanten."

 Suga Kanten Manufacturers' Association of Shinano, Naganoken—

Kaku-Kanten.

40. Takahashi, Gihei, Hokkaido— Smoked salmon.

41. Takasu, Kenzo, Hiroshima-

Canned mackerel.

42. Waki, Takakage, Hiroshima—Canned oysters.

43. Yakijiri Oil Makers' Association, Hokkaido—

Herring oil (crude and refined).

44. Yamada, Genbei, Osaka— Corals (pink, red and white).

Coral works.
Necklaces (pink, red, white).

Bracelets (pink, red, white).

Scarf pins (pink).

Link cuff buttons.

Mantel ornaments.

Ash receivers.

Cigarette holders.

Inkstand.

Coral beads.

45. Yendo, Toramatsu, Shinmaneken—

Black corals.

Black coral works.

Cigarette-holders and pipes.

Umbrella handles.

Pen holders.

 Yenoshima Shell Works' Association, Kanagawaken—
 Shell works.

Toys.

10,00

Ash receivers. Ladle, etc.

"Hossugai" (Hyalonema) and "Kishago" (Unbonum).

Sperm whale oil.

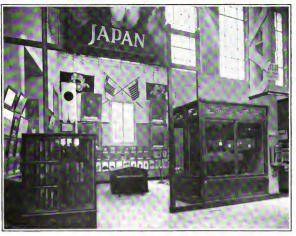
Bottle-nose oil.

Cod liver oil.

Cod oil refined.



EXHIBITS OF IMPERIAL INSTITUTE OF INFECTIOUS DISEASE—PALACE OF EDUCATION AND SOCIAL ECONOMY.



EXHIBITS OF POLICE ASSOCIATION OF JAPAN-PALACE OF EDUCATION AND SOCIAL ECONOMY.



EXHIBITS OF THE RED CROSS ASSOCIATION OF JAPAN IN THE JAPANESE PAVILION.

Shark oil (two kinds).
Herring oil (crude and refined).
Fat herring oil.
Sardine oil, refined.
Sardine oil, paper filtered.
Sardine oil, cloth filtered.
Sardine oil, wax, refined.
Whale oil. refined.

GROUP 124.

Fish Culture.

 Ikomagun Fishery Association, Naraken—
 Fish pond (model and photos) with the specimen of gold fish, "Lanchu" and "Wakin."

- Imperial Fishery Bureau, Tokio—
- Oyster culture in Hiroshima-ken and saga-ken (photos).
- "Haigai" (Arca Granosa) culture (model) with the specimens of the shell-fish showing its growth.
- 3. Local Government of Hokkaido, Hokkaido—
 - Chitose hatchery (model and photos) with specimens of salmon and "kabacheppo" (red fish) and a brief note on the hatchery.

CHAPTER XIII.

DEPARTMENT OF ANTHROPOLOGY.

Exhibits.

GROUP 128.

Ethnography.

 Formosan Government, Taihoku, Formosa—

Photographs of the native manners and customs.

Pictures of the natives.

Map showing distribution of the native tribes.

CHAPTER XIV.

DEPARTMENT OF SOCIAL ECONOMY.

Exhibits.

GROUP 129.

Social and Economic Conditions.

... I. Imperial Patent Bureau, Tokio-

Notes on patent, design and trademark.

GROUP 139.

Charities and Corrections.

1. Japan Police Association, Tokio-

Uniforms and equipments worn by policemen at different periods.

Portraits and photographs of prominent police officials in olden and modern times.

Books and documents relating to the police.

The modern police equipment. Secret service exhibits

Ancient and modern methods of identifying criminals by photographs or descriptions.

Photographs and drawings of ancient and modern police stations.

Special historical subjects.

Classification of crimes.

Method for the prevention of crime.

Gallery of criminals.

Gallery of depressed characters.

2. Japan Red Cross Society, To-

Charts.

Tables.

Photographs.

Publications.

Medals of membership.

Magic lantern pictures.

Uniforms of relief stuff and material for nursing (installed in Japanese Pavilion).

GROUP 140.

Public Health.

1. Imperial Institute for Infectious Diseases, Tokyo—

Pathological, histological and

bacteriological preparations. Instruments and apparatus.

Antierysifelasic liquid tuberculine.

Antityphoid serum.

Antidysenteric serum.

Vaccine of typhoid fever.

Vaccine of dysentery.

Typhus-toxine.

a i

Cholera-toxine.

Antityphoid serum.

Antidysenteric serum.

Asakawa's diagnostic liquid for typhoid fever.

Kitashima's diagnostic liquid for tuberculosis.

Koch's original tubercline.

Newest tubercline.

Tubercle-bacillus (gice) e. 2 Tb.

Tb. nuclein.
T. R.
Kitasato's clayfilter.
Kitasato's rat-holder.
Kitasato's mouse-holder.
Kitasato's araerobe dishes.
Shibayama's trocar.
Teruuchi's araerobe flask.
Model of rabbit with rabbit

holder.
Oshida's spinal cord extractor.
Spinal cord of hydrophobia (sic)
Street-virus of hydrophobia.
Fixed virus of hydrophobia.
Spinal cord of hydrophobia.
(pres. in glycerine).
Vaccine of hydrophobia.
Microphotographs.
Photographs.
Plate culture of bacille.
Test-tube culture of bacille.
Model of spinal cord extraction.

2. Imperial Serum Institute, Tokyo—

Appliances, instruments and preparations used in medicine and surgery. Diphtheria-antitoxine, No. 1. Diphtheria-antitoxine, No. 2. Diphtheria-antitoxine, No. 3. Diphtheria-antitoxine, sice. Tetanus-antitoxine, No. 1. Tetanus-antitoxine, No. 2. Tetanus-antitoxine, sice, Cholera serum. Cholera vaccine. Pest serum. Pest vaccine. Diphtheria-toxine. Tetanus-toxine.

Diphtheria baccilus, sice. Venom of trimeresurus. Venom of trigonscephalus. Pest-toxine. Pest serum, sice. Diphtheria-antitoxine. Tetanus-antitoxine. Trimeresurus antitoxine serum. Tuberculotyminacid. T. P. Tub. F. Syringe for injecting toxines. Skeleton of trimeresurus. Trigonocephalus blomhofbi. Eggs of trimeresurus. Poison-fang of trimeresurus. Model of injection of toxine. Model of collecting blood. Table of cases of diphtheria.

3. Imperial Lymph Institute. Tokyo—

Appliances, instruments and preparations used in medicine and surgery; tables.

Sato's vaccinating utensils for child.

Umeno's vaccinating utensils for calf.

Calf lymph (putting up).
Model of vaccinated calf.
Stuffed skin of calf.
Tablet with painted figures.
1-6 appearance of vesicles on

vaccinated calf.
7-8 appearance of vesicles on vaccinated calf.

Tables of the experiments on the propagation of diluted vaccine from calf to calf.

Tables of the results of inocula-

CHAPTER XV.

DEPARTMENT OF PHYSICAL CULTURE.

Exhibits.

GROUP 143.

Games for Children and Adults.

- 1. Ito Takufu, Hongo, Tokio— Tennis rackets.
- 2. Nakamura Kobci, Osaka— Bow strings. -Tennis rackets.
- 3. Nishiyama Jinbei, Osaka— Bow strings.

APPENDIX.

APPENDIX.

WEIGHTS AND MEASURES.

	The	Kin = 3	160 n	iom	me									. =	= 1.325 lb. avoirdupois.
	4.4	Kwan =	1,0	00 1	non	ıme	,							. =	= 8.281 lbs. "
	4.4	Shaku												. =	= .994 foot.
															= 1.193 inches.
															= 5.965 feet.
															= 15 mile, 5.4229 chains.
															= 2.44 mlles.
															= 5.6552 sq. miles.
															= 2.45 acres.
															= 39.7033 gallons.
	4.4														= 4.9629 bushels,
eg.b	4.														= 3.9703 gallons.
nd;															= 1.9851 pecks.
					tre										
							-	-				1011	****	(4	momme).
			1	810	4111	_	U.	. 20	~	′	,,,,	,,,,,	1116	(1	s monnej.





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EXHIBITS OF THE JAPANESE EMPIRE

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ENTERNATIONAL REPORTION (NO) WE LOUIS



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E. g. Stollmen

Supplement to the Official Catalogue of the Exhibits of the Japanese Empire.

DEPARTMENT OF ART.

GROUP 9.

Page 54. Column 1.—Ando, Jubei, Nagoya. Bowl, cloisonné, made by Kawade Shibataro, should be transferred to Ando's exhibition in Group 14, page 58.

DEPARTMENT OF LIBERAL ARTS.

GROUP 15.

Add the following exhibition:

2a. Kobayashi, Bunshichi.

Wood prints.

GROUP 24.

- Page 73, Exhibit No. 4, for Hayashi Kunitaro, read Hayashi Kunimatsu.
- 2. Page 75, after exhibit No. 32 add the following exhibit:
- 32a. Okai, Zensaku, Imahashi, Osaka—

Doilies.

Envelopes.

DEPARTMENT OF MANUFACTURES. GROUP 30.

GOLD AND SHAPERSMITHS' WORK.

(ADDITIONS.)

22a. Koizumi, Gensaburo, Ibaraki-keu-

Vase.

Bell.

47a. Takata, Shinkyo, Yushima Tenjin-cho, Hongo, Tokyo— Mantel ornament. Flower vases.

CLOISONNE WORKS.

(ADDITION.)

12a. Hayashi, Kimbei, Aichi-ken-

. Flower vases.

Tablet frame.

Incense box.

27a. Ito, Masuyemon, Nishitobe, Yokohama-

Incense box.

Flower vase.

Tray.

Dishes.

61a. Shibata, Matakichi, Kobe-

Flower vases.

GROUP 33.

(ADDITION.)

18a. Iwai, Wasaburo, Manjuji Takakura Hagashi-iru— Flower vases.

18b. Ishikawaken Kinzoku Shuppin Kumiai, Ishikawa-ken-

Flower vases.

Mantel ornaments.

Dishes.

Incense boxes.

Cigarette cases.

Flower pots.

Flower pots.

Card receivers.

Beer cups.

Paper weights.

Match cases.

Lamp stands.

Bowl.

Flower dishes.

Ash receivers.

Lanterns.

Frame tablet board.

Candle stick.

GROUP 34.

LACQUER WORKS.

(ADDITIONS.)

Kikuchi, Ycijiro, Kitatakara-cho, Asakusa-ku, Tokyo-

Cigar case. Tablet frame.

Yubu, Uyemon, Toyama-ken-

Photograph frame.

Stands.

FANCY ARTICLES.

Strike out the following exhibits:

35. Yubu, Uyemon, Toyama-ken-

Photograph frame.

Add the following exhibit:

Taika Hat and Mat Manufacturing Co., Byoritsu, Formosa— Doilies,

GROUP 38.

(ADDITIONS.)

1. Ando. Bokko, Tokyo-

Folding screens.

3. Fujiwara, Ihei, Hachiman-cho, Osaka-

Folding screen.

Table.

Cabinet.

Cake vessels.

Box.

Tablet.

4. Fukunaga, Jihei, Sonezaki Naka 2 Chome, Osaka-

Folding screens.

Screen.

Curtains.

Photograph frames.

Tapestry.

- Fukunaga, Sennosuke, Sukiya-cho, Nihonbashi-ku, Tokyo— Bookcase.
- Higuchi, Hikoyemon, Kitakiutaro Machi, Osaka— Folding screens.
- Honda, Toknjiro, Teunoji, Uyeno-Miva-cho, Osaka— Cabinet.
 Flower vase.
- Horino, Riuzo, Utsubo Kamidori, Osaka— Chairs.
 Folding bed,
- Ichishima, Asajiro, Konya-cho, Kanda-ku, Tokyo— Bookcases.
- Ikeda, Scisuke, Shinmonzen Umemoto-cho, Kyoto— Folding screen.
- Ishizeki, Sauctaro, Minamitemma-cho, Kyobashi-ku, Tokyo— Bookcase.
- Ivamoto, Kuvasaburo, Higashigoken-cho, Tokyo— Bookease.
 Folding screens.
- 14. Kake, Hikojiro, Kyoto— Folding screens.
- Kato, Denshichi, Tajima-cho, Osaka— Bookcase.
- Kikuchi, Ycijiro, Kitatawara-cho, Asakusa, Tokyo— Folding screen.
- Kimura, Shigeta, Niigata— Chairs. Table. Bed.
- Kobayashi, Toyemon, Tori 2 Chome, Nihoubashi-ku, Tokyo— Hat rack, Toilet bureau.
- 19. Minakami, Isaburo, Niigata— Bureau.
- Momoi, Tatsuo, Motohama Machi, Yokohama— Bookease.

21. Nakai & Company, Kobe-

Chairs.

Bench.

Tables.

Cabinets.

Tea cabinet.

Tou calonici.

Flower vase stand.

Music stand.

Mirror frame.

Umbrella stand.

Folding screens.

Stove screens.

 Nakamura, Sakujiro, Nakabashi, Kosumi-cho, Kyobashi-ku, Tokyo—

Bookcase.

23. Negishi, Kakujiro, Suyehiro-cho, Kanda-ku, Tokyo— Framed pictures.

Mantel ornament.

24. Ogawa, Nihei, Hinouye-cho, Osaka-

Folding screens.

Screen.

25. Oka, Ihei, Hachiman-cho, Osaka-

Table.

Stands.

Coffee travs.

26. Ono, Yukichi, Gorobei-cho, Kyobashi-ku, Tokyo-

Chairs.

Table.

Writing desk.

Bookcase.

27. Ouchi, Tatsusaburo, Ibaragi-ken-

Screen.

28. Sano, Kashichi, Shinyemon-cho, Kyobashi-ku, Tokyo— Screens.

29. Sasaki, Yamonta, Niigata-

Box.

Tobacco box.

Table.

Bookcase.

30. Seshimo, Yeizaburo, Hachiman-cho, Osaka-

Cabinet.

Tables.

Coffee travs.

Stands.

Cigar box.

Flower basin.

Flower basin stands.

31. Seto, Yeisaburo, Hachiman-machi, Osaka-

Cabinet.

Table.

Travs.

Stands.

Cigarette box.

Flower vase.

32. Shikko Goshikwaisha, Yumi-cho, Kyobashi-ku, Tokyo-

Bookcase.

Tables.

Cabinet.

33. Shimamura, Shingo, Tera-machi, Shijoagaru, Kyoto— Bookcases.

Desk.

Table.

Chairs.

Folding screens.

- Sugita, Kogoro, Tsukiji, Tokyo— Cabinet.
- Suzumura, Kinjiro, Takakura-dori, Gojoagaru, Kyoto— Folding screens.
- 36. Takikawa, Kichitaro, Tottori-

Screen.

Screen.

Folding screen.

- 37. Tamura, Shebci, Minamikiutaro-machi, Osaka— Folding screens.
- 38. Tokuoka, Sakubei, Minamikiuhoji-machi, Osaka— Folding screen.
- Terada, Jisaburo, Tera-machi, Matsubara Kitayeiru, Kyoto— Framed pictures.
 Folding screens.
 - Tsujimura, Yentaro, Tansu-cho, Shitaya-ku, Tokyo-

- 41. Uyeda, Naoshichi, Kitakiuhoji-machi, Osaka— Folding screens.
- 42. Wakaye, Ikusaburo, Minamihon-machi, Osaka— Shelf.
- 43. Watano, Kichiji, Yokohama— Folding screens.
- 44. Yamanaka Company, Kitahama, Osaka-

Tables.

Chairs.

Double chair.

Fancy chair.

Sofas.

Beokcase.

Cabinet.

Flower pot stands.

Lamp stands.

Wall hanging.

Framed picture.

Folding screens. Flower vessel.

Bowls.

Lanterns.

45. Yamanuka, Scishichi, Minamihoriye Kami-dori, Osaka— Cabinet.

46. Yasuda, Mitsusuke. Hachiman-cho, Osaka-

Cabinet.

Tables.

47. Yendo, Yasuharu, Uchida-machi, Yokohama-

Sideboard.

Cabinet

Mirror stand.

Table:

Settee.

Desk chair.

Tea chair.

Roman chair.

Rocking chair.

Easy chair,

Dragon chair.

Lady's chair.

Stand .

Picture frame.

Sign board.

GROUP 43.

CARPETS, TAPESTRIES AND FABRICS FOR UPHOLSTERY.

(Palaces of Varied Industries and Manufactures.)

(ADDITIONS.)

- Aoki, Hachryemon, Shiga-ken— Tapestry. Tablets.
- Akao, Zenjiro, Hyogo-ken— Mattings.
- 3. Bungo Matting Trading Association, Oita-ken— Mattings.
- 4. Chikugo Matting Trading Association, Fukuoka-keu— Mattings.
- 5. Fujixeara, Ichimatsu, Osaka-fu— Carpets.
- Hanamushiro Domeikwai, Fukui-ken— Mattings.
- 7. Higashi Kokuto Gnn Matting Trading Association, Oita-ken— Mattings.
- Hiroshima-ken Matting Trading Association, Hiroshima-ken— Mattings.
- Ishikawa-ken Export Matting Traders' Association, Ishikawakeu—

Mattings.

- Isozaki, Takasaburo, Okayama— Mattings.
- 11. Ishimori, Mobei, Hyogo-keu-Mattings.
- Inoue, Yoshibei, Kyoto— Bed spreads.
- 13. Japan Carpet Co.— Carpets.
- 14. Kawashima, Jimbei, Hishiya-cho, Kyoto— Brocade tapestry.
- Kobayashi, Tobci, Tori Abura-cho, Tokyo Table cloth.

- Kawase, Kambei, Tera-machi-dori, Kyoto— Carpets.
- 17. Kishi, Yosoji, Nagasaki— Carpets.
- Kori, Sødahei, Ibaraki-ken— Carpets.
- 19. Koyama & Co., Osaka-fu—
 "Sakai" carpets.
- 20. Kobe Matting Dealers' Association, Kobe—
 Mattings.
- 21. Kojima, Zenshiro, Hyogo-ken— Carpets.
- 22. Kasamatsu, Toshiro, Hyogo-ken— Yamato carpets.
- 23. Mayeda, Kaneshichi, Tomizawa-cho, Tokyo— Curtain and table cloth.
- 24. Nambu Matting Trading Association, Oita-ken— Matting.
- 25. Nayemura, Tokuji, Hyogo-ken— Mattings.
- 26. Nozawa & Co.— Mattings.
- Okabe, Naosaburo, Hon-machi, Osaka— "Okabe" carpets.
- 28. Okamoto, Masakichi, Osaka-fu— Carpets.
- Okayama-ken Matting Trading Association, Okayama-ken— Mattings.
- 30. Okajima. Chiyozo, Nakanoshima, Osaka— Bed spread stuff.

 Table and chair covering stuff.
- 31. Ogura, Shotaro, Hyogo-ken— Mattings.
- 32. Ojima, Nagakiyo, Hyogo-ken— Carpets.
- 33. Ryoyen, Goshikaisha, Kobe— Mattings.

- 34. Shibata, Matakichi, Hyogo-keu— Mattings.
- 35. Shibabayashi, Sotaro, Namba, Osaka— "Naniwa ori" curtain. "Naniwa ori" curtain stuff.
- Sugawa, Kiyoshi, Hon-cho, Yokohama—
 Table cloth.
 Embroidered and open-work linen.
 Sample of teneriff.
- 37. Sanyen Company, Kagawa-keu— Matting.
- 38. Shimodate Bussau Orimono Co., Ibaraki-keu— Carpets.
- 39. Sugino, Kurakichi, Junkci Machi, Osaka—
 "Miyabi" carpet.
- 40. Takikawa, Kichitaro, Tottori-ken— "Yuzen" tapestry.
- 41. Tamiya, Yosuke, Ibaragi-ken—Carpets.
- 42. Urata, Masahachi, Iwate-ken— Mattings.
- 43. Wakano, Sobei, Osaka-fu— Cetton carpets.
- 44. Yamanaka Co., Kitahama, Osaka—Carpets.
- 45. Yamano, Zinbei, Hyogo-ken— Mattings.
- 46. Yutaka Carpet Manufacturing Co., Hyogo-ken— Yutaka carpets.

GROUP 44.

UPHOLSTERERS' DECORATIONS.

(Palaces of Varied Industries and Manufactures.)

(ADDITIONS.)

- 1. Fujiwara, Ihei, Hachiman-cho, Osaka— Folding screen.
- Nishikawa, Genjiro, Sakai-machi, Kyoto— Shades.
 Folding screen.

- 3. Ogawa, Nihei, Hinouye-cho, Osaka—Shades.
- 4. Onishi, Yo, Gifu-kcu—
 Folding screen.
 Wall hanging.
 Photograph holders.
 Letter holders.
 Shades.
 Window curtains.
 Tapestry.
- 5. Shibabayashi, Sotaro, Namba, Osaka—Shades.
- Shoyei Gomeikwaisha, Kitano, Osaka— Bead shades.
- 7. Tamura, Chojiro, Tera-wachi, Kyoto— Shades.
- 8. Terajima, Noboru, Shimomactsu-cho, Nagoya— Shades.
- 9. Uyeda, Tozacuon, Uyehira, Yahci, Shades.
- 10. Yokoyama, Shinichiro, Tokyo— Bead shades,

GROUP 57.

(Palace of Manufactures.)

(ADDITIONS.)

- 17a. Fuso-kwan, Nagano-keu-Raw silk.
- 46a. Hodakasha, Nagano-ken-Raw silk.

GROUP 61.

(ADDITIONS.)

- 71a. Miyake, Tamizo, Kobe— Chip braids.
- 124a. Torikai, Yotaro, Yokohama— Chip braids.

DEPARTMENT OF ELECTRICITY.

GROUP 67.

(ADDITIONS.)

Koran Goshikwaisha, Saga-ken-

Insulator.

Knop.

Clat.

DEPARTMENT OF AGRICULTURE.

GROUP 84.

All the tea exhibits in Group 90 should be transferred to this group as follows:

- 2a. Ang-hu-siu, Taihoku, Formosa— Oolong tea.
- 3a. Bak-keit-san, Taihoku, Formosa— Oolong tea.
- 3b. Be-sin-khiam, Taihoku, Formosa— Pouchong tea.
- 4a. Central Tea Union, Tokio-

Japan Tea Manufacturing Company.

Japan Tea Exporting Company.

Sekiyo Tea Company.

Eushimi Investment Company.

Kushu Tea Exporting Company.

Fuji & Company.

Shizuoka Tea Company.

Tokai Tea Trading Company.

Shimada Tea Company.

Makinohara Tea Company.

Okasa Tea Company.

Fujiye Tea Company.

Nakamura Tea Company.

Kioyeki Tea Trade Association.

Yamamura & Co.

Kagimoto National Product Company.

Kioto Sagara-County Tea Traders' Association (Ito Kozaimon, Mori Yeisuke, Tomaki Kamekichi, Koyama Kanekichi, Mizoda Bunkichi).

Brick tea. "Gyokuro" (choicest). Green tea.

4b. Cheng-shong-het, Toshiyen, Formosa— Oolong tea.

Black tea.

- 4c. Cheng-liong-hai, Toshiyen, Formosa— Oolong tea.
- 4d. Chhi-piang-hu, Toshiyen, Formosa— Oolong tea.
- 4e. Chhoa-lip, Toshiyen, Formosa—
 Oolong tea.
- 4f. Chiam-beng-tek, Taihoku, Formosa—Oolong tea.
- 4g. Chiam-hok-san, Taihoku, Formosa— Oolong tea.
- 4h. Chiam-ki-siong, Taihoku, Formosa—Oolong tea.
- 41. Chiu-bun-chhiang, Taihoku, Formosa—Oolong tea.
- 4j. Chiun-chheng-pian, Taihoku, Formosa— Pouchong tea.
- 4k. Chiun-ka-iu, Taihoku, Formosa— Oolong tea.
- 4!. Chu-su-hun, Taihoku, Formosa— Oolong tea.
- Sa. Formosan Government, Japan— Tea.
- 10a. Go-bnn-siu, Taihoku, Formosa— Oolong tea.
- tob. Go-chi-hien, Taihoku, Aichi-ken— Oolong tea.
- 76a. Iong-kı-lien, Taihoku, Formosa— Oolong tea.
- 16b. Iu-hou-chheng, Taihoku, Formosa— Oolong tea.

16c.	In-ki-siong,	Taihoku,	Formosa—
		Oolong tea.	

- 16d. Iun-khien-chi, Taihoku, Formosa— Oolong tea.
- 19a. Jap-bun-chin, Taihokn, Formosa— Oolong tea.
- 19b. Jap-kim-tian, Taihoku, Formosa— Oolong tea.
- 22a. Khu-kai-sck, Taihoku, Formosa— Pouchong tea.
- 22b. Koeh-tsun-ung, Taihoku, Formosa— Pouchong and Oolong tea.
- 22c. Ko-tsui-seng, Shinko, Formosa— Oolong tea.
- 22d. Ko-heng, Shinko, Formosa— Oolong tea.
- 22e. Ko-kim-kict, Shinko, Formesa— Oolong tea.
- 22f. Ko-teng, Shinko, Formosa—Oolong tea.
- 27a. Leng-chhun-lim, Taihokn, Formosa— Oolong tea.
- 27b. Liau-kim-kiong, Taihokn, Formosa— Oolong tea.
- 27c. Li-ban-ku, Taihoku, Formosa— Oolong tea.
- 27d. Li-hui, Taihoku, Formosa— Oolong tea.
- 27e. Lim-liong-tck, Taihoku, Formosa— Oolong tea.
- 27f. Lim-seng-hein, Taihokn, Formosa— Oolong tea.
- 27g. Li-pek-chin, Taihoku, Formosa— Oolong tea.
- 27h. Li-teng-liong, Taihoku, Formosa— Oolong tea.
- 36a. Na-tiok-chai, Toshiyen, Formosa— Oolong tea.

- 36b. Ng-beng-sim, Taihoku, Formosa— Oolong tea.
- 36c. Ng-chheng-seng, Taihoku, Formosa—Pouchong tea,
- 40a. Ong-chheng-hun, Taihoku, Formosa— Pouchong tea.
- 40b. Ong-hong-chheng, Taihoku, Formosa— Pouchong tea.
- 43a. Peh-chiet-soan, Taihoku, Formosa— Pouchong tea.
- 43b. Po-i-iam, Taihoku, Formosa— Oclong tea.
- 45a. So-liong-teng, Taihoku, Formosa—Oolong tea.
- 45b. So-sien-giok, Taiheku, Formosa— Oolong tea.
- 47a. Tan-chu-seng, Taihoku, Formosa— Pouchong tea.
- 47b. Tan-giok-lo, Taihoku, Formosa— Poucheng tea.
- 47c. Tan-heng-hong, Taihoku, Formosa— Oolong tea.
- 47d. Tan-hui-soat, Taihoku, Formoso— Pouchong tea.
- 47e. Tan-kai-seng, Taihoku, Formosa— Pouchong tea.
- 47f. Tan-keng-ki, Shinko, Formosa— Oolong tea.
- 47g. Tan-ki-ju, Taihoku, Formosa— Oolong tea.
- 47h. Tan-kong-sut, Taihoku, Formosa— Pouchong tea.
- 47i. Tan-lien-hui, Shinko, Formosa— Oolong tea.
- 47j. Tan-lim-eng, Shinko, Formosa— Oolong tea.
- 47k, Tan-siong-piau, Taihoku, Formosa— Pouchong tea.

- 47l. Tan-siu-le, Taihoku, Formosa—Oolong tea.
- 47m. Tan-sui-seug, Taihoku, Formosa— Oolong tea.
- 47n. Tan-tai-tiu, Taihoku, Formosa— Pouchong tea.
- 470. Tau-tek-jiong, Taihoku, Formosa— Oolong tea.
- 47p. Tan-thien-lai, Taihoku, Formosa— Oolong tea.
- 474. Tea Traders' Association, Taihoku, Formosa— Pouchong tea. Oolong tea.
- 47r. Teng-peng-hui, Taihoku, Formosa— Oolong tea.
- 47s. Tiang-teng-wong, Taihoku, Formosa— Oolong tea.
- 47t. Tin-un-iong, Taihoku, Formosa— Pouchong tea.
- 47u. Tinn-chiam-khoc, Taihoku, Formosa— Pouchong tea.
- 47v. Tinn-kien-seng, Shinko, Formosa— Oolong tea.

GROUP 87.

Add the following exhibits:

- 8a. Inada, Tokutaro, Hiroshima-ken— Vermicelli.
- 13a. Matsuda, Shinshichi, Hyogo-keu— Vermicelli.
- 13b. Miwa Vermicelli Traders' Association, Nara-ken— Vermicelli.
- 17a. Ogi Vermicelli Traders' Association, and Miyoshi Vermicelli Traders' Association, Saga-ken— Vermicelli.
- 18a. Saga-ken Kanzaki Vermicelli Traders' Association, and Kanzakigun Vermicelli Traders' Association, Saga-ken— Vermicelli.

GROUP 89.

- Pages 209, 210 and 211, for Dried nepbelium longana, read Dried Nephelium tongana.
- 2. Transfer No. 16 and No. 20 to Group 90.

GROUP 90.

- 1. Add the following exhibits:
- 23a. Formosa Sugar Manufacturing Co., Hozan, Formosa— Sugar.
- 31a. Hotta, Sciyemon, Aichi-ken— Shovu.
- 31b. Ito, Kosayemon, Miye-ken—Shoyu.
- 48a. Kitamura, Shinji, Miye-ken—Shoyu.
- 91a. Ong-sut-long, Tainan, Formosa— Sugar.
- 127a. Tanaka, Denshin, Aichi-ken— Shoyu.
- 144a. Yamanchi, Shozo, Aichi-ken— Shoyu.
 - Transfer exhibits Nos. 16 and 20, Group 89, to this group, as follows;
- 54a. Koch-toan-lai, Tainan, Formosa— Sugar.
- 62a. Lo-keng-tan, Tainan, Formosa— Sugar.

shima-ken-

GROUP 95.

- 1. Exhibitor No. 1, for Taihoku, read Shinchiku.
- 2. Pp. 219 and 220, for Zingiber, read Turmeric.
- Add the following exhibits:
 Awa Indigo Mounfacturers' and Merchants' Association, Toku-

Indigo made after "Nagai" system.

DEPARTMENT OF FORESTRY.

GROUP 112.

 Page 230, column 1, line 7, to page 231, column 1, line 27, read as follows:

Arundinaria Hindsii Munro.

Arundinaria Hindsii Munro, var. Graminea Bean

Arundinaria japonica S. et Z.

Arundinaria Marmorea, Makino,

Arundinaria Narihira Makino.

Arundinaria quadrangularis, Munro.

Arundinaria simoni, S. et Z. Riv.

Arundinaria simoni, S. et Z. Riv. var. Chino, Makino.

Arundinaria Totisk Makino.

Bambusa, nana, Roxb.

Bambusa, nana, Roxb, var. normalis Makino.

Bambusa, palmata, Marliac, forma nebulosa, Makino.

Phyllostachys bambusoides, S. et Z.

Phyllostachys bambusoides, S. et Z., var. aurea Makino

Phyllostachys bambusoides, S. et Z., var. Cassillonis, Makino.

Phyllostachys Marliaceae Makino.

Phyllostachys Mitis. Riv.

Phyllostachys Mitis. Riv., var. Heterocycla, Makino,

Phyllostachys Puberula Munro.

Phyllostachys Puberula Munro var. Boryana Makino.

Phyllostachys Puberula Munro var. nigra, Makino.

Phyllostachys Puberula Munro var. nigra, Makino, forma nigropunctata, Makino.

Sasa poniculata, Makino et Shibata.

Sasa barealis, Makino.

2. Page 231, column 1, line 28, to page 238, line 23, read:

Gingkoaceae.

Gingko biloba, L. (I cho).

Taxaceae.

Podocarpus macraphylla Don. (Maki). Podocarpus Nageia, R. Br. (Nagi). Cephalotaxus drupaceae, S. et Z. (Inugaya). Torreya nucifera, S. et Z. (Kaya). Taxus cuspidata, S. et Z. (Ichii).

Abietinae.

Pinus densiflora, S. et Z. (Aka-matsu). Pinus Thunbergii Parl (Kuro-matsu). Pinus Koraiensis, S. et Z. (Chosen-matsu). Pinus parviflora, S. et Z. (Himeko-matsu). Pinus pumila, Pall. (Hai-matsu). Larix leptolepis, Gord. (Kara-matsu). Picea hondoensis, Mayr (Tohi). Picea bicolor, Mayr. (Hari-mome). Picea polita, Carr. (Matsu-hada). Picea ajanensis, Fisch. (Ezo-matsu). Picea Glehni, Mast. (Shinko-matsu). Tsuga Sieboldi, Carr. (Tsuga). Tsuga diversifolia, Maxim (Kometsuga). Pseudotsuga japonica, Shirasawa (Togasawara). Abies firma, S. et Z. (Momi). Abies homolepsis, S. et Z. (Dakemomi). Abies Veitchii Lindl. (Shiramomi). Abies Mariesii, Mast. (Aomori-todomatsu). Abies sachalinensis, Mast. (Todomatsu). Thujopsis dolabrata, S. et Z. (Hiba). Thuja japonica, Maxim. (Kurobe). Chamæcvparis obutusa, S. et Z. (Hinoki). Chamæcyparis pisifera, S. et Z. (Sawara). Cryptomeria iaponica, Don. (Sugi). Cunninghamia sinensis, R. Br. (Koyosan). Sciadopytis vertiollata, S. et Z. (Koya-maki). Juniperus rigida, S. et Z. (Nezumi-sashi). Juniperus chinensis, L. (Byakushin). Juniperus chinensis, L. var. procumbens, Endl. (Hai-byakushin).

Juglandacæ.

Platycarya strobilacea, S. et E. (No-gurumi).

Pterocarya rhoifolia, S. et Z. (Sawa-gurumi).

Juglans sieboldiana Maxim. (Oni-gurumi).

Juglans regia L. var. sinensis Cas. (Teuchigurumi).

Juglans cordiformis, Maxim. (Hime-gurumi).

Myricacæ.

Myrica rubra, S. et Z. (Yama-momo).

Salicaca.

Populus tremula, L. var. villosa, Wesm. (Yama-narashi).

Populus balsamifera, L. var. suaveolens Loud. (Deronoki).

Salix Buergeriana Miq. (Osaruko-yanagi).

Salix Caprea L. (Saru-yanagi).

Salix purpurea L. var. multinervis (Fr. et Sav.) Matsumura (Kori-yanagi).

Salix viminalis L. (Kinu-yanagi).

Salix opaca Anders. (Onoe-yanagi).

Salix triandra L. var. nipponica (Fr. et Sav.) v. Seemen (Tachi-yanagi).

Betulacea.

Carpinus laxiflora, Bl. (Aka-shide).

Carpinus yedoensis, Maxim. (Inu-shide).

Carpinus Japonica, Bl. (Kuma-shide).

Betula alba, L. var. communis, Rgl. (Ma-kamba). Betula alba, L. var. vulgaris, Dc. (Shira-kamba).

Betula Corvlifolia Rgl. et Max. (Urajiro-kamba).

Betula Ermanni Cham. var. nipponica, Maxim. (Take-kamba).

Betula globispica, Shirai. (Jizo-kamba).

Betula Maximowicziana, Rgl. (Udai-kamba).

Betula Bhojpattra, Wall. var. typica, Rgl. (Onoore).

Alnus japonica, S. et Z. (Hannoki).

Alnus viridis, DC, var. Sibirica, Rgl. (Miyamahannoki).

Alnus incana, Willd. var. glauca, Ait. (Yamahannoki).

Alnus glutinosa, Willd. var. japonica Matsumura (Kawara-hannoki).

A!nus emerginata, Matsumura. (Yahazu-hannoki).

Alnus firma, S. et Z. (Yashabushi).

Alnus firma, var. multinervia, Rgl. (Hime-yashabushi).

Corylus rostrata Ait. var. Sieboldiania Maxim. (Tsuno-hashibami).

Fagaecæ.

Fagus sylvatica, L. var. Sieboldi. Maxim. (Buna-Fagus japonica, Maxim, (Inubuna), Castanea vulgaris Lam. var. japonica, DC. (Kuri). Pasania cuspidata, Oerst. (Shiinoki). Pasania glabra, Oerst. (Mateba-shii). Ouercus glandulifera, Bl. (Konara). Quercus grosseserrata, Bl. (Mizu-nara). Quercus crispula, Bl. (O-nara). Quercus aliena, Bl. (Nara-gashiwa). Ouercus dentata, Thumb. (Kashiwa). Quescus variabilis, Bl. (Abe-maki). Quercus serrata, Thunb. (Kunuki). Quercus acuta, Thunb. (Aka-gashi). Quercus Vibrayeana Fr. et Sav. (Shira-kashi). Quercus glauca, Thunb. (Ara-kashi). Ouercus myrsinaefolia, Bl. (Urajiro-gashi). Ouercus sessilifolia, Bl. (Tsukubane-gashi). Quercus phyllireoides A. Gr. (Imame-gashi). Quercus gilva, Bl. (Ichii-gashi). Quercus thalassica, Hce. (Shirifuka-gashi).

Ulmacea.

Ulmus campestris Sm. (Harunira).
Ulmus campestris Sm. var. vulgaris Planch.
(Kobu-nira).
Ulmus parvifolia, Jacq. (Akinire).
Zelkowa Kcaki, Sieb. (Keyaki).
Celtis sinensis, Pers. (Enoki).
Aphananthe aspera, Planch. (Mukunoki).

Moraceæ.

Marus alba L. var. stylosa (Kuwa).

Cudrania triloba Hce. (Hari-guwa).

Broussonetia Kazinoki Sieb. (Kozo).

Broussonetia papyrifera, Vent. (Kajinoki).

Ficus erecta Thunb. (Inu-biwa).

Ficus crecta var. Sieboldi King. (Hosoba-inubiwa).

Ficus Wightiana, Wall. var. japonica Miq. (Ako).

Ficus retusa L. var. Nitida Miq. (Gatsumaru).

Proteaceæ.

Helicia cochinchinensis Lour. (Yamamo-gashi).

Santalacea.

Buckleya quadriala B. et H. (Tsukubane).

Magnoliacea.

Magnolia hypoleuca, S. et Z. (Honoki).

Magnolia Kobus, DC. (Kobushi).

Magnolia parviflora, S. et Z. (Oyamarenge).

Magnolia salicifolia, Maxim, (Tamu-shiva).

Michelia compresa, Maxim. (Ogatamanoki).

Illicium Anisatum, L. (Shikimi).

Trochodendracea.

Cercidiphyllum japonica, S. et Z. (Katsura).

Euptelaea polyondra, S. et Z. (Fusa-zakura).

Trochdendron aralioides, S. et Z. (Yama-guruma).

Berberidaceæ.

Berberis Thunbergii, DC. (Me-gi).

Berberis Sieboldi, Miq. (Hirohano-hebinobora-

Nandina domestica Thunb. (Nanten).

Menispermaceæ.

Cocculus laurifolius DC. (Koshu-Uyaku).

Lauraceæ.

Cinnamomum Camphora, Nees. (Kusu-noki).
Cinnamomum pedunculatum, Nees. (Yabu-nik-kei).

Cinnamomum sericeum Sieb. (Maruba-nikkei).

Machilus Thunbergii, S. et Z. (Tabunoki).

Michilus Thunbergii var. japonica Yatabe (Awogashi).

Litsea glauca, Seib. (Shiro-damo).

Litsea japonica Tuss. (Hama-biwa).

Lindera strychnifolia Vill. (Tendai-uyaku).

Lindera triloba, Bl. (Shiro-mozi).

Lindera obtusiloba, Bl. (Dankobai).

Lindera umbellata Thunb. (Kanakugi-noki).

Lindera glauca, Bl. (Yama-kobashi).

Lindera sericea, Bl. (Kuro-moji).

Actinopodophne lancifolia Meisn. (Kago-gashi).

Actinopodophne acuminata Meisn. (Ao-kagon-oki).

Saxifragacea,

Deutzia scabra Thunb. (Utsugi).

Philadelphus coronarius L. var. Satsumi Maxim. (Baikawa-utsugi).

Hydrangea paniculata Sieb. (Nori-noki).

Hydrangea scandens Maxim. (Goto-zuru).

Schizophragma hydrangeoides, S. et Z. (Yuki-kazura).

Pittosporaceæ.

Pittosporum Tobira, Ait. (Tobera-no-ki).

Hamamelidaceæ.

Hamamelis japonica, S. et Z. (Mansaku).

Distylium racemosum, S. et Z. (Isu-no-ki).

Rosaceæ.

Pirus Toringo Sieb. (Zumi).

Pirus Aria, L. var. Kamaonensis Wall. (Urajironoki).

Pirus Miyabei, Sargent. (Azuki-nashi).

Pirus ancuparia Gaerten. var. japonica Maxim. (Nanakamado).

Pirus sambucifolia, Ch. et Schl. (Miyama-nana-kamado).

Prunus macrophylla, S. et Z. (Bakuchi-noki).

Prunus Grayana, Maxim. (Uwamizu-zakura).

Prunus Siori Fr. Schm. (Shiurizakura).
Prunus Buergeriana, Miq. (Inu-zakura).
Prunus pseudo-cerasus Lindl. var. spontanea,
Maxim. (Yama-zakura).
Prunus spinulosa, S. et Z. (Rimboku).
Prunus incisa Thunb. (Mame-zakura).
Photinia villosa, Dene. (Kama-tsuka).
Amelanchier asiatica, C. Koch. (Zaifuri-boku).
Photinia glabra, Thunb. (Kaname-mochi).
Kerria japonica, DC. (Yamabuki).
Bhaphiolepis japonica, S. et Z. (Sharimbai).

Leguminosa.

Sophora japonica, L. (Enju).
Sophora platycarpa, Maxim (Fuji-ki).
Sophora Sikokiana Makino (Yuku-noki).
Cladrastis amurensis, B. et H. var. floribunda,
Maxim (Inu-enju).
Albizzia Julibrissin, Boiv. (Nemu-noki).
Lespedeza bicolor Jurcz. (Hagi).
Gleditschia japonica, Miq. (Saikachi).

Rutaceæ.

Zanthoxylum piperitum, DC. (Sansho).
Zanthoxylum schinnifolium, S. et Z. (Inu-zan-sho).
Oroxa japonica Thunb. (Kokusagi).
Skimmia japonica Thunb. (Miyama-shikimi)

Skimmia japonica Thunb. (Miyama-shikimi). Phellodendron amurense, Rupr. (Kiwada).

Simarubaceæ.

Picrasma ailanthoides, Pl. (Nigaki).

Meliaceæ.

Melia japonica, Don. (Sendan).

Euphorbiacea.

Daphniphyllum macropodum, Miq. (Yuzuriha).
Daphniphyllum glaucescens, Bl. (Hime-yuzuriha).

Mallotus japonica, Muell, Arg. (Akame-gashiwa). Excoecaria japonica, Muell, Arg. (Shiroki). Sapium sebiferum Roxb. (Nankin-haze).

Buxacea.

Buxus sempervirens, L. (Asama-tsuge).

Anacardiacea.

Rhus vernicifera, DC. (Urushi).

Rhus trichocarpa Miq. (Yama-urushi).

Rhus succedanea, L. (Haze-noki).

Rhus silvestris, S. et Z. (Yama-haze).

Rhus semi-altata Murr. var. Osbeckii, DC. (Fushi-noki).

Aquifoliacea.

Ilex crenata, Thunb. (Inu-tsuge).

Ilex pedunculosa, Miq. (Sovogo).

Ilex rotunda, Thunb. (Kurogane-mochi).

Ilex integra, Thunb. (Mochi-noki).

Ilex latifolia, Thunb. (Tarayo).

Ilex Oldharmi, Miq. (Nanami-noki).

Celastracea.

Euonymus curopaea, L. var. Hamiltoniana Maxim (Mayumi).

Euonymus alata, C. Koch. (Nishiki-gi).

Euonymus oxyphylla, Miq. (Tsuri-bana).

Euonymus japonica, Thunb. (Masaki).

Staphyleaceæ.

Staphylca Bumalda, S. et Z. (Mitsuba-utsugi). Euscaphis staphylcoides, S. et Z. (Gonzui). Turpina pomifera DC. var. nepalensis Hiern. (Yama-deki).

Aceracea.

Acer palmatum, Thunb, (Kaede).

Acer Tschonoskii Maxim. (Mine-kaede).

Acer micranthum, S. et Z. (Ko-minekaede).

Acer parviflorum, Fr. et Sav. (Tetsu-kaede).

Acer pictum, Thunb. (Itava-kaede).

Acer purpurascens, Fr. et Say, (Kaji-kaede).

Acer spictum Lam., var. ukurunduens Maxim (Ogara-bana).

Acer japonica, Thunb. (Hauchiwa-kaede).

Acer argutum, Maxim. (Asanoha-kaede).

Acer crataegifolium, S. et Z. (Me-urinoki).

Acer Ginnala, Maxim (Karakogi-kaede). Acer distylum, S. et Z. (Hitotsuba-kaede). Acer nikœnse, Maxim (Megusuri-noki). Acer carpinifolium, S. et Z. (Yamashiba-kaede). Acer rufinerve, S. et Z. (Urihada-kaede).

Hippocastanaceæ.

Aesculus turbinata, Bl. (Tochi-noki).

Sapindaceæ.

Sapindus Mukurosi, Gaertn. (Mokuroji). Koelreuteria paniculata, Laxm. (Mokugenji).

Sabiaceæ.

Meliosma myriantha, S. et Z. (Awabuki). Meliosma tenuis, Maxim (Miyama-hohoso). Meliosma pungens, Wall. (Yama-biwa).

Rhamnacew.

Berchemia racemosa, S. et Z. (Kuma-yanagi). Rhamnus crenata, S. et Z. (Iso-noki). Microrhamnus frangulioides, Maxim (Neko-no-chichi).

Hovenia dulcis, Thunb. (Kemponashi).

Elacocarpacea.

Elæocarpus photiniæfolia, H. et A. (Magashi). Elaeocarpus japonica, S. et Z. (Koban-mochi).

Tiliacea.

Tilia cordata, Mill. var. japonica, Miq. (Shina-no-ki).

Tilia cordata, Miqueliana, Maxim (Bodaiju). Tilia cordata, Maximowicziana, Shirasawa (Oba-

Tilia cordata, Kiusiana, Makino et Shirasawa (Hera-no-ki).

Theacea.

bodaiiu).

Thea japonica, (L) Nais (Tsubaki).

Stewartia pseudocamellia, Maxim (Natsutsubaki).

Eurya ochnacca, Szysz. (Sakaki). Eurya japonica, Thunb. (Hi-sakaki). Taonabo japonica, Szysz. (Mokkoku). Stachyuraceæ.

Stachyurus praecox, S. et Z. (Ki-fuji).

Gutiferæ.

Hypericum chinense L. (Biyo-yanagi).

Flacourtiaceæ.

Idesia polycarpa, Maxim (Ii-giri).

Thymelæceæ.

Edgeworthia chrysantha, Lindl. (Mitsumata).

Elwagnacew.

Elægnus umbellata, Thunb. (Aki-gumi).

Lythracea.

Lagerstroemia indica L. (Saru-suberi).

Rhizophoracew.

Jambosa vulgaris, DC. (Futomomo).

Araliacca.

Fatsia japonica Dene, et Planc, (Yatsude).

Aralia sinensis, L. (Tara-no-ki).

Dendrodanax japonica Seem, (Kakure-mino).

Acanthopanax ricinifolium, S. et Z. (Hari-giri).

Acanthopanix sciadophylloides, Fr. et Sav. (Koshi-abura).

Acanthopanix innovans, Fr. et Sav. (Takanotsume).

Helwingia rusciflora, Willd. (Hana-ikada).

Cornacea.

Cornus Kousa Buerg. (Yama-boshi).

Cornus officinalis, S. et Z. (sanshiyu).

Cornus macrophylla, Wall. (Mizuki).

Cornus ignorata, C. Koch. (Kumano-mizuki).

Marlea platanifolia, S. et Z. (Urinoki).

Aucuba japonica, Thunb. (Aoki).

Clethracea.

Clethra barbinervis, S. et Z. (Ryobu).

Ericacea.

Rhododendron Metternichii, S. et Z. (Shakunage).

Rhododendron Keiskei Miq. (Hikage-tsutsuji). Rhododendron dilatatum Miq. (Mitsuba-tsu-

tsuji). Tripetaleia paniculata, S. et Z. (Ho-tsutsuji).

Pieris japonica, Thunb. (Asebi).

Leucothæ Grayana Maxim (Hanahiri-noki). Leucothæ Keiskei Mig. (Iwa-nanten).

Sopotacca.

Sideroxylon ferrugineum, H. et A. (Aka-tetsu).

Symplocaaeac.

Symplocos cratægoides, Ham. (Sawa-futagi). Symplocos myrtacea, S. et Z. (Hai-no-ki). Symplocos prunifolia, S. et Z. (Kuro-bai). Symplocos japonica, DC. (Kuroki). Symplocos neriifolia, S. et Z. (Mimizu-bai). Symplocos spicata Roxb. (Kanzaburo-noki).

Styracaccæ.

Halesia corymbosa (Asagara). Styrax japonica, S. et Z. (Ego-no-ki). Styrax Obassia, S. et Z. (Haku-umboku).

Oleacea.

Fraxinus Bungeana, DC. var. pubinerves, Wg. (Toneriko).

Fraxinus longicuspis, S. et Z. (Aotago).

Fraxinus Sieboldiana, Bl. (Shioji).

Ligustrum Ibota, Sieb. (Ibota-no-ki).

Ligustrum japonica, Thunb. (Nezumi-mochi).

Osmanthus Aquifolium, B. et H. (Hiiragi).

Osmanthus fragrans Lour. (Mokusei):

Borraginacea.

Ehretia macrophylla, Wall. (Maruba-chishanoki).

Verbenaceæ.

Callicarpa japonica, Thunb. (Mi-murasaki). Vitex Negundo, L. (Ninjin-boku). Clerodendron tricotomum (Kusagi).

Scrophulariacea.

Paulownia tomentosa, Thunb. H. Bn. (Kiri).

Bignoniacca.

Catalpa Koempferi, S. et Z. (Ki-sasage).

Caprifiacea.

Viburnum dilatatum, Thunb. (Gamazumi).

Viburnum Sieboldii Miq. (Gomagi).

Viburnum tomentosum, Thunb. (Yabu-demari).

Viburnum opulas, L. (Kamboku).

Viburnum furcatum, Bl. (Mushikari).

Viburnum odoratissimum, Ker. (Sango-ju).

Diervilla grandiflora, S. et Z. (Hakone-utsugi).

Diervilla japonica, DC. (Tani-utsugi).

- 3. Page 239, column 2, line 8, for Myrsinaefolia, read glanca.
- 4. Page 239, column 2, strike out lines 24 and 25.
- Page 240, column 1, lines 15 and 16, read Litsea glanca Sieb. (Shirodamo).
- 6. Page 241, column 1, lines 24 and 25, read Screen made of Juglaus Sieboldiana.
- 7. Page 243. column 2, line 31, for puperula, read puberula.
- 8. Page 246, column 2, line 3, read "Hanshimen." .
- Page 246, exhibit No. 19, for "Shoro Tsuso," read "Shoro" and "Tsuso" (paper plant).

DEPARTMENT OF MINES AND METALLURGY. GROUP 115.

 Page 251, column 2, line 1, for steel wire drilling rope, read steel wire drilling rope socket, and strike out the next line, socket.

GROUP 116.

- Page 252, exhibit No. 1, for Pig. Sennin Orc, read Pig, Sennin iron mine.
- 2. Exhibit No. 2, for province, read colliery.
- 3. Page 253, column 1, line 3, for Isudo-Kosei, read Tsudo-Kosei.
- 4. Page 253, column 1, line 17, for yeblsu, read yebisu.
- 5. Page 253, column 1, strike out lines 21 and 22.
- 6. Page 253, column 2, line 4, for coal, read coke.
- 7. Ibid, lines 5, 8, 11, 14, 17, 20, strike out with zinc blend.

- 8. Page 254, column 1, line 7, for tuyf, read tuff.
- 9. Ibid, line 19, for Ilovaite, read Ilvaite.
- 10. Ibid, line 25, for se., read etc.
- 11. Page 254, after line 42, add:
 - 1. Dressed pea-size ore from jigger, Ashio Copper Mine.
 - 2. Dressed ore from jigger, Ashio Copper Mine.
 - 3. Waste from jigging small ore, Ashio Copper Mine.
 - 4. Waste from jigging fine ore, Ashio Copper Mine.
 - 5. Waste from Wilfry table slime, Ashio Copper Mine.
 - 6. Dressed ore from jigger, Furokura Copper Mine.
 - 7. High grade selected ore, Innai Silver Mine.
 - 8. Low grade selected ore, Innai Copper Mine.
 - 9. Dressed ore from jigger, Furokura Copper Mine.
 - 10. Concentrates, Innai Silver Mine.
 - 11. Tailing from settler, Innai Silver Mine.
- 12 Page 254, column 2, line 3, for Aptite, read Apatite.
- 13. Ibid, line 15, for Sanwai, read Sanmai.
- 14. Ibid, line 19, for Propyrite, etc., read Porphyrite granite, Sanmai,
 Ani Copper Mine.
- Ibid, line 21, for Sanmai Shinkiri, read Sanmai Shinkiri vein, Ani Copper Mine.
- 16. Ibid, lines 22, 23 and 24, read Tuff breecia with fossil shell, Sannai Shinkiri Odate, Ani Copper Mine.
- 17. Page 255, column 1, after line 27, insert Collection of Sulphur.
- 18. Page 255, column 1, the exhibition of the Imperial Geological Survey consists of the following items:

I. MINERALS.

I. Elements.

- 1. Graphite (Kawai, Hida).
- 2. Native sulphur (Yonago, Shinano).
- 3. Native sulphur (Shirane, Kozuke).
- 4. Native arsenic (Akatani, Echizen).
- 5. Native arsenic in Liparite (Akatani, Echizen).
- 6. Native bismuth (Ikuno, Tajima).
- 7. Native platinum (Yubarigawa, Ishikari).

- 8. Iridosmine (Yubarigawa, Ishikari.
- 9. Native copper (Osaruzawa, Rikuchu).
- 10. Native copper in slate (Makimine, Hyuga).
- 11. Native silver in quartz geode (Innai, Ugo).
- 12. Native silver on argentiferous quartz vein (Ikuno, Tajima).
- 13. Native mercury in sandstone (Minato, Hyuga).
- 14. Gold nugget (Ezashi, Kitami).
- 15. Native gold on quartz (Yamagano, Osumi).
- 16. Native gold on quartz (Zuiho, Formosa).

II. Compounds of Sulphur, Scienium, Tellurium, Arsenic, Antimony and Bismuth.

- 17. Realgar (Monji, Rikuzen).
- 18. Orpiment (Osorezan, Mutsu).
- 19. Stibnite (Ichinokawa, Ivo).
- 20. Stibnite (Ichinokawa, Ivo).
- 21. Stibnite (Ichinokawa, Ivo).
- 22. Stibnite (Ichinokawa, Iyo).
- 23. Bismuthinite in Calco-quartzose Vein (Sannotake, Buzen).
- 23. Distriction Carco-quartzose Veni (Samiotake, Duzen)
- 24. Molybdenite (Shirakawa, Hida).
- 25. Molybdenite (Kawachi, Echigo).
- 26. Blende with Calcite on Rock Crystal Aggregate (Ani, Ugo).
- 27. Blende (Shiraita, Echigo).
- Blende with Rhodochrosite (Saimyoji, Ugo).
 Pyrrhotine (Yoshioka, Bitchu).
- 29. Purites (Ocernania Pilaschu)
- 30. Pyrites (Osaruzawa, Rikuchu).
- 31. Pyrites (Udo, Izumo).
- 32. Pyrites (Sagi, Izumo).
- 33. Pyrites (Ani, Ugo).
- 34. Pyrites (Akadani, Echigo).
- 35. Marcasite (Ani, Ugo).
- 36. Marcasite (Osaruzawa, Rikuchu).
- 37. Arsenopyrite (Furigusa, Mikawa).
- Galena and Chalcopyrite on Rock Crystal Aggregate (Ani, Ugo).
- 39. Galena and Rhodochrosite on Breccia (Kuratani, Kaga).)
- 40. Galena with Chalcopyrite and Calcite (Daira, Ugo).
- Argentite in Rock Crystal Druse (Ikuno, Tajima).
 Argentite in Rock Crystal Druse (Aikawa, Sado).
- 43. Chalcosine (Omodani, Echizen).
- 44. Petzite in Ouartz Vein, Telluric Gold (Setamai, Rikuzen).

- 45. Cinnabar (Komagaeri, Yamato).
- 46. Cinnabar in Calcite (Suii, Awa, Shikoku).
- 47. Cinnabar (Okuchi, Satsuma).
- 48. Bornite (Ikuno, Tajima).
- 49. Chalcopyrite (Ani, Ugo).
- Chalcopyrite with Rock Crystal Aggregates (Kuriyama, Shimotsuke).
- 51. Chalcopyrite in Rock Crystal Aggregates (Arakawa, Ugo).
- Chalcopyrite with Rock Crystal Aggregates (Arakawa, Ugo).
- 53. Matildite in Quartz Vein (Kuriyama, Shimotsuke).
- 54. Jamesonite (Innai, Ugo).
- 55. Pyrargyrite in Quartz Vein (Innai, Ugo).
- 56. Tetrahedrite on Rock Cystal Aggregates (Kiura, Bungo).
- Stephanite in Rock Crystal Geodes with Pyrites (Innai, Ugo).
- 58. Stephanite (Innai, Ugo).
- 59. Stannite on Chalcopyrite (Ikuno, Tajima).

III. Oxygen-Compounds of Elements.

- 60. Rock Crystal (Otomezaka, Kai).
- 61. Rock Crystal (Otomezaka, Kai).
- 62. Rock Crystal (Otomezaka, Kai).
- 63. Rock Crystal (Otomezaka, Kai).
- 64. Rock Crystal (Tanabe, Kii).
- 65. Rock Crystal (Narushima, Hizen).
- 66. Rock Crystal (Tashiro, Mino).
- Rock Crystal with Actinolite Enclosures, Prase (Takemori, Kai).
- 68. Rock Crystal (Kimpuzan, Kai).
- 69. Smoky Quartz (Naegi, Mino).
- 70. Smoky Quartz (Takayama, Mino).
- 71. Smoky Quartz (Tanokamiyama, Omi).
- 72. Smoky Quartz (Tanokamiyama, Omi).
- 73. Amethyst (Obara, Iwaki).
- 74. Rose Quartz (Tozawa, Iwaki).
- 75. Ferruginous Quartz (Hanawa, Rikuchu).
- 76. Chalcedony (Aikawa, Sado).
- 77. Chalcedony (Natani, Kaga).
- 78. Chalcedony (Oguni, Uzen).
- 79. Tridymite (Ishigamiyama, Higo).

- 80. Rutile (Takayama, Mino).
- 81. Cassiterite on Sandstone (Takano, Hitachi).
- 82. Cassiterite, Stream Tin (Takayama, Mino).
- 83. Pyrolusite (Nisembets, Shiribeshi).
- 84. Sapphire (Takayama, Mino).
- 85. Hematite, Specular Iron (Sennin, Rikuchu).
- 86. Cuprite (Nishi-tada, Settsu).
- 87. Chalcotrichite on Malachite (Arakawa, Ugo).
- 88. Tenorite (Kosaka, Rikuchu).
- 89. Opal (Tsuno, Buzen).
- 90. Opal (Natani, Kaga).
- 91. Hyalite (Tatevama, Etchu).
- 92. Hyalite (Tateyama, Etchu).
- 93. Siliceous Sinter (Tatevama, Etchu).
- 94. Manganite (Owani, Mutsu).
- 95. Limonite (Kotaki, Ugo):

IV. Haloid Salts.

- 96. Horn Silver on Manganese Ore (Tsubaki, Ugo).
- 97. Fluorite (Obiru, Bungo).
- 98. Fluorite (Ikuno, Tajima).

1'. Carbonates, Manganite and Plumbate.

- 99. Iceland Spar (Odaki, Musashi).
- 100. Calcite (Furokura, Rikuchu).
- 101. Calcite (Osaruzawa, Rikuchu).
- 102. Calcite (Ani, Ugo).
- 103. Calcite (Maze, Echigo).
- 104. Calc Sinter (Kawachi, Hitachi).
- 105. Dolomite (Innai, Ugo).
- 106. Magnesite (Kuratani, Kaga).
- 107. Smithonite (Kamioka, Hida).
- 108. Rhodochrosite (Saimyoji, Ugo).
- 109. Rhodochrosite (Kuratani, Kaga).
- 110. Siderite (Uchinokuchi, Bungo).
- 111. Siderite (Omori, Iwami).
- 112. Witherite (Tsubaki, Ugo).
- 113. Aragonite (Takasegawa, Shinano).
- 114. Cerussite on Quartz (Kisanmori, Ugo).
- 115. Cerussite (Arakawa, Ugo).
- 116. Malachite (Hisan-ichi, Ugo).

- 117. Malachite (Ani, Ugo).
- 118. Azurite (Hiyoshi, Bitchu).
- 119. Psilomelane (Numadate, Ugo).
- 120. Asbolite (Seto, Owari).

11. Sulphates, Molybdate and Wolframates.

- 121. Barytes with Jamesonite Enclosures (Kuratani, Kaga).
- 122. Barytes (Tsubaki, Ugo).
- 123. Barvtes (Aikawa, Sado).
- 124. Barvtes (Osaruzawa, Rikuchu).
- 125. Wulfenite (Kami-Wakogo, Echizen.
- 126. Scheelite (Kamikane, Kai).
- Scheelite in Argentiferous Quartz Vein (Sannotake, Buzen).
- 128. Scheelite in Argentiferous Quartz Vein (Ikuno, Tajima).
- 120. Reinite (Otomezaka, Kai).
- 130. Wolframite (Takayama, Mino).
- 131. Ferberite in Quartz (Kurasawa, Kai).
- 132. Alunite (Tochihara, Harima).
- 133. Linarite (Arakawa, Ugo).
- 134. Gypsum (Yagosawa, Kai).

1711. Ferrites.

- 135. Chromite (Yakeyama, Chikuzen):
- 136. Chromite in Serpentine (Mukawa, Iburi).
- 137. Magnetite (Kamaishi, Rikuchu).
- 138. Magnetite in Quartzite (Ogushi, Hizen).

1711. Phosphates, Arsenates, Niobates and Tantalates.

- 130. Fergusonite (Takayama, Mino).
- 140. Columbite (Yamanoo, Hitachi).
- 141. Apatite (Miyamoto, Kai).
- 142. Apatite (Ashio, Shimotsuke).
- 143. Apatite (Kurokura, Sagami).
- 144. Pyromorphite on Quartz-porphyry (Kamioka, Hida).
- 145. Libethenite on Rock Crystal Aggregates (Arakawa Ugo).
- 146. Vivianite in Clay (Kimpozan, Higo).
- 147. Vivianite (Ashio, Shimotsuke).
- 148. Scorodite (Kiura, Bungo).

1X. Silicates and Titanates.

- 149. Hemimorphite (Kiura, Bungo).
- 150. Andalusite in Pegmatite (Ishikawa, Iwaki).
- Topaz in Intergrowth with Smoky Quartz (Tanokamiyama, Omi).
- 152. Topaz (Tanokamiyama, Omi).
- 153. Topaz (Tanokamiyama, Omi).
- 154. Topaz (Takayama, Mino).
- 155. Topaz (Takayama, Mino).
- 156. Topaz (Takayama, Mino).
- 157. Topaz (Takayama, Mino).
- 158. Topaz (Naegi, Mino),
- 159. Datolite with Axinite (Yamaura, Hyuga).
- 160. Datolite with Axinite (Yamaura, Hyuga).
- 161. Tourmaline (Takayama, Mino).
- 162. Tourmaline (Ishikawayama, Iwaki).
- 163. Tourmaline (Ishikawayama, Iwaki).
- 164. Tourmaline (Goshodaira, Shinano).
- 165. Lievrite (Zomeki, Nagato).
- 166. Lievrite (Kamioka, Hida).
- 167. Epidote (Takeshi, Shinano).
- 168. Epidote (Kamaishi, Rikuschu).
- 169. Vesuvianite (Kiura, Bungo).
- 170. Vesuvianite (Kiura, Bungo).
- 171. Danburite (Obira, Bungo).
- 172. Danburite (Obira, Bungo).
- 173. Garnet (Arimine, Etchu).
- 174. Garnet (Shimohogi, Nagato).
- Garnet in Druse with Diopside and Quartz (Kamaishi, Rikuchu).
- 176. Garnet (Ishikawayama, Iwaki).
- 177. Garnet (Yamanoo, Hitachi).
- 178. Garnet in Pegmatite (Ishikawayama, Iwaki).
- 179. Axinite (Obira, Bungo).
- 180. Axinite (Yamaura, Hyuga).
- 181. Axinite (Obira, Bungo).
- 182. Axinite (Obira, Bungo).
- 183. Biotite (Miyamoto, Kai).
- 184. Zinuwaldite (Tanokamiyama, Omi).
- 185. Muscovite and Smoky Quartz in Orthoclase (Tanokamivama, Omi).

- 186. Muscovite (Tanokamiyama, Omi).
- 187. Chlorite as Druse in Magnetite (Kamaishi, Rikuchu).
- 188. Talc (Ogushi, Hizen).
- 189. Cordierite in Volcanic Ejecta (Asamayama, Shinano).
- 190. Pinite after Cordierite (Doshi, Kai).
- 191. Diopside and Epidote in Druse (Kamaishi, Rikuchu).
- 192. Hedenbergite (Obira, Bungo).
- 193. Hedenbergite (Obira, Bungo).
- 194. Augite (Tateshinayama, Shinano).
- 195. Augite (Kami-Sano, Kai). •
- 196. Wollastonite (Komiyagami, Mino).
- 197. Rhodonite (Innai, Ugo).
- 108. Rhodonite (Oyamada, Mikawa).
- 100. Actinolite (Gorotsuyama, Ivo).
- 200. Actinolite (Gorotsuvama, Ivo).
- 201. Hornblende (Hiyoshi, Bitchu).
- 202. Hornblende (Hakusan, Kaga).
- 203. Hornblende (Kiirun, Formosa).
- 204. Beryl (Ishikawayama, Iwaki).
- 205. Beryl (Tanokamiyama, Omi).
- 206. Beryl (Tanokamiyama, Omi).
- 207. Orthoclase (Miyamoto, Kai).
- 208. Orthoclase (Tanokamiyama, Omi).
- 200. Orthoclase with Smoky Quartz (Tanokamiyama, Omi).
- 210. Orthoclase (Tanokamiyama, Omi).
- 211. Orthoclase (Tanokamiyama, Omi).
- 212. Orthoclase (Tanokamiyama, Omi).
- 213. Orthoclase with Smoky Quartz (Naegi, Mino).
- 214. Amazonstone (Miyamoto, Kai).
- 215. Andesine (Shioda, Shinano).
- 216. Andesine (Iwojima, Volcano Islands).
- 217. Anorthite (Miyakejima, Izu).
- 218. Titanite in Diorite (Kamioka, Hida).
- 219. Apophyllite in Druse in Tuff (Maze, Echigo).
- 220. Apophyllite (Maze, Echigo). ...
- 221. Apophyllite and Analcime in Druse in Tuff (Maze, Echigo).
- 222. Chabasite (Hishikari, Satsuma).
- 223. Analcime (Maze, Echigo).
- 224. Heulandite (Ogasawarajima).

SPECIMENS OF LARGE SIZE.

- Apatite and Rock Crystal on Copper Ore (Ashio, Shimotsuke).
- 649. Stibnite (Ichinokawa, Iyo).
- 650. Stibnite (Ichinokawa, Iyo).
- 651. Topaz (Takayama, Mino).
- 652. Stibnite (Ichinokawa, Ivo).
- 653. Stibnite (Ichinokawa, Iyo).
- 654. Rock Crystal (Kurasawa, Kai).
- 655. Rock Crystal (Kurusawa, Kai).
- 656. Rock Crystal (Takemori, Kai).
- 657. Calcite, Blende and Chalcopyrite (Ani, Ugo).
- 658. Alabandine (Saimvoji, Ugo).
- 659. Quartz after Barytes (Arakawa, Ugo).
- 660. Danburite and Garnet (Obiro, Bungo).
- 661. Rhodochrosite, Blende and Pyrites (Kuratani, Kaga).
- 662. Apophyllite and Analcime (Maze, Echigo).
- 663. Calcite (Innai, Ugo).
- 664. Rock Crystal and Stibnite (Ichinokawa, Iyo).
- 665. Galena with Pyrites, Calcite and Quartz (Daira, Ugo).
 - 666. Reinite (Otomezaka, Kai). 667. Rock Crystal (Kurasawa, Kai).
 - 668. Axinite (Obira, Bungo).

2. Rocks.

The specimens of rocks here exhibited, include most of the typical ones found in Japan. They are arranged according to their geological formations with their corresponding localities as follows:

A. Metamorphic Rocks.

1. Gneiss.

- 225. Granite Gnciss (Shimotsukawa, Iwaki).
- 226. Granitic Gneiss (Kami-Kochi, Hitachi).
- 227. Augen-gneiss (Shioda, Awaji).
- 228. Porphyritic Gneiss (Takato, Shinano).
- 220. Biotite-gneiss (Kamada, Iwaki).230. Muscovite-gneiss (Hase, Hitachi).
- 231. Mica-schist (Shimo-matsukawa, Iwaki).
- 232. Mica-schist with Andalusite (Hase, Hitachi).
- 233. Mica-schist (Misakubo, Totomi).

- 234. Crystalline Limestone (Takanuki, Iwaki).
- 235. Cipoline (Kambaratoge, Hida).
- 236. Amphibolite (Tamadare, Hitachi).
- 237. Amphibole-gneiss (Tamadare, Hitachi).
- 238. Amphibole-schist (Ishizumi, Iwaki).
- 230. Quartzite (Ishizumi, Iwaki).

II. Crystalline Schist.

- 240. Sericite-schist (Tokushima, Awa, Shikoku).
- 241. Sericite-schist (Sueno, Musashi).
- 242. Sericite-schist (Oboke, Awa, Shikoku).
- 243. Piedmontite-schist (Tokushima, Awa, Shikoku).
- 244. Piedmontite-schist (Minano, Mushashi).
- 245. Piedmontite-quartzite (Tokushima, Awa, Shikoku).
- 246. Glaucophane-sericite-schist (Tokushima, Awa, Shikoku).
- 247. Glaucophane-cericite-schist (Tokushima, Awa, Shikoku).
- 248. Porphyritic Sericite-gneiss (Mie, Hizen).
- 240. Porphyritic Sericite-gneiss (Mie, Hizen).
- 250. Spotted Graphite-schist (Yanaze, Musashi).
- 251. Spotted Graphite-schist (Mie, Hizen).
- 252. Graphite-schist (Mie, Hizen).
- 253. Graphite-schist (Yamashirodani, Awa, Shikoku).
- 254. Spotted Chlorite-amphibolite (Tokushima, Awa, Shikoku).
- 255. Spotted Chlorite-amphibolite (Yanaze, Musashi).

B. Sedimentary Rocks.

1. Palæozoic.

- 256. Amphibolite (Mihara, Kozuke).
- 257. Amphibolite (Negishi, Iwaki).
- 258. Pyroxenite (Sakahara, Kosuke).
- 259. Crystalline Limestone (Mayumi, Hitachi).
- 260. Crystalline Limestone (Yuzurihara, Kozuke).
- 261. Adinole Slate (Mamba, Kozuke).
- 262. Adinole Slate (Hibara, Kozuke). 263. Ouartzite (Heibara, Kozuke).
- 264. Schalstein (Kodaira, Kozuke).
- 265. Radiolarian Slate (Shitsumi, Wakasa).
- 266. Limestone (Kuroda, Kozuke).
- 267. Schalstein (Kashiwagi, Kozuke).
- 268. Schalstein (Kodaira, Kozuke).
- 269. Schalstein (Maue, Musashi).

- 270. Schalstein (Takozu, Rikuchu).
- 271. Greywacke Sandstone (Kagahara, Kozuke).
- 272. Hornstone (Yono, Kozuke).
- 273. Limestone (Kagahara, Kozuke).
- 274. Schwagerina Limestone (Akasaka, Mino).
- 275. Brecciated Limestone (Akasaka, Mino).
- 276. Metamorphosed Limestone with Augite (Sahilite) (Okaza-kiyama, Yamashiro).
- 277. Clay-slate (Ashio, Shimotsuke).
- 278. Ottrelite-slate (Miyata, Hitachi).
- 270. Mica-slate' (Yamaguchi, Hitachi).
- 280. Hornstone (Metamorphosed) (Nyoidake, Yamashiro).
- 281. Andalusite-slate (Shirasu, Yamashiro).
- 282. Cordierite-slate (Okazakiyama, Yamashiro).
- 283. Cordierite-slate (Shirasu, Yamashiro).
- 284. Macaceous Sandstone (Wayama, Rikuchu).

II. Mesozoic.

- 285. Shale (Innai, Rikuzen).
- 286. Clay-slate (Ogachibama, Rikuzen).
- 287. Shale with Daonella (Sakawa, Tosa).
- 288. Schalstein with Pentacrinus (Aohama, Buzen).
- 289. Schalstein (Morihiro, Nagato).
- 200. Conglomerate (Onami, Tango).
- 201. Conglomerate (Yamanoi, Nagato).
- 292. Conglomerate (Todai, Shinano).
- 293. Trigonia Sandstone (Kurokawachi, Shinano).
- 204. Sandstone (Minato, Awaji).
- 205. Sandstone (Minato, Aawji).
- 296. Sandy Shale (Miura, Iyo).
- 297. Siliceous Limestone with Foraminifera (Setonoya, Suruga).

III. Cainozoic.

I. FERTIARY.

- 298. Marly Limestone (!somura, Awa, Honshu).
- 299. Limestone (Fukaya, Noto),
- 300. Calcareous Sandstone (Nanatsugama, Hizen).
- 301. Conglomerate (Iida, Musashi).
- 301. Sandstone (Itsukaichi, Musashi).
- 303. Sandstone (Miike, Chikugo).
- 304. Sandstone (Shibuya, Etchu).

- 305. Shell Conglomerate (Morai, Ishikari).
- 306. Shale with Fossil Shells (Yumoto; Iwaki).
- 307. Calcareous Tuff (Kaisuka, Awa, Honshu).
- 308. Tuff Breccia (Iwatsu, Tajima),
- 300. Tuff (Yumoto, Sagami).
- 310. Tuff (Uraga, Sagami).

2. Quarternary.

- 311. Loam (Shibnya, Musashi).
- 312. Sand (Shibuya, Musashi).
- 313. Gravel (Shibuya, Musashi).

·C. ERUPTIVE ROCKS.

I. Palao-Eruptive Rocks.

- 314. Granite (Oda, Hitachi),
- 315. Granitite (Sumoto, Awaji).
- 316. Horublende-granitite (Ashio, Shimotsuke).
- 317. Hornblende-granitite (Kanavama, Tango).
- 318. Hornblende-granitite (Kurita, Tango).
- 319. Porphyritic Granitite (Kurita, Tango).
- 320. Porphyritic Granitite (Kamigori, Hitachi).
- 321. Granite with Allanite (Jodojimachi, Yamashiro).
- 322. Aplite (Maezawa, Kai).
- 323. Graphic Granite (Ishikawayama, Iwaki).
- 324. Corsite (Shiroshi, Iwaki).
- 325. Mica-diorite (Yunotake, Iwaki).
- 326. Quartz-diorite (Ishigoyama, Awa, Honshu).
- 327. Gabbro-diorite (Mineokayama, Awa, Honshu).
- 328. Gabbro (Mineokayama, Awa, Honshu).
- 320. Norite (Shioda, Awaji).
- 330. Peridotite (Saimaru, Hitachi).
- 331. Peridotite (Ono, Higo).
- 332. Peridotite (Machiya, Hitachi).
- 333. Peridotite (Machiya, Hitachi).
 23.1. Peridotite (Machiya, Hitachi).
- 334. Peridotite (Machiya, Hitachi). 335. Ophicalcite (Kanasaki, Musashi).
- 336. Ophicalcite (Kurokochi, Shinano).
- 337. Quartz-porphyry (Kukuno, Hida).
- 338. Hornblende-porphyrite (Yunotake, Iwaki).
- 330. Diabase (Mauc, Musashi).
- 340. Augite-porphyrite (Kebaraichi, Rikuchu).

- 341. Augite-porphyrite (Kanazawa, Rikuchu).
- 342. Augite-porphyrite (Misaka Kai).
- 343. Augite-porphyrite (Hozugawa, Tamba).
- 344. Fourchite (Hozugawa, Tamba).

11. Neo-Eruptive Rocks.

- 345. Liparite (Shirane, Shimotsuke).
- 346. Liparite (Ashio, Shimotsuke).
- 347. Rhyolite (Otagiri, Shinano).
- 348. Piedmontite-rhyolite (Karuizawashinden, Shinano).
- 349. Perlite (Kurogamiyama, Hizen).
- 350. Perlite (Horaijiyama, Mikawa).
- 351. Pumice (Toshima, 1zu).
- 352. Trachyte (Tsuruha, Sanuki).
- 353. Dacite (Kumasaka, Izu).
- 354. Mica-andesite (Yurayama, Sanuki).
- 355. Mica-audesite with Garnet (Anamushi, Yamato).
- 356. Hornblende-andesite, Haruna Lava (Ikaho, Kozuke).
- 357. Hornblende-andesite, Haruna Lava (Harunafuji, Kozuke).
- 358. Homblende-andesite, Shirane Lava (Shirane, Shimotsuke).
- 359. Hornblende-andesite (Hidake, Higo).
- 36c. Hornblende (Aonoyama, Iwami).
- 361. Hornblende-andesite, Hakusan Lava (Hakusan, Kaga).
- 362. Andesite-Obsidian (Ikadaba, Izu).
- 363. Obsidian (Wadatoge, Shinano).
- 364. Spherulitic Obsidian (Yugashima, Izu).
- 365. Propylite (Ikuno, Tajima).
- 366. Propylite (Yugashima, Izu).
- 367. Propylite (Yaguradake, Sagami).
- 368. Pyroxenc-audesite, Iwaka Lava (Iwakisan, Mutsu).
- 369. Two-pyroxcue-andesite (Kanchira, Mutsu).
- 370. Two-pyroxene-andesite, Chokai Lava (Chokaisan, Uzen).
- Olivine-pyroxene-andesite, Iwate Lava (Iwatesan, Rikuchu).
- 372. Two-pyroxene-andesite, Zao Lava (Zaosan, Rikuzen).
- Two-pyroxene-andesite, Bandai Lava (Bandaisan, Iwa-shiro).
- 374. Olivine-pyroxene-andesite, Nasu Lava (Nasusan, Shimotsuke).
- 375. Augite-andesite, Asama Lava (Asamayama, Shinano).
- 376. Cordierite-bearing Ejecta, Rhyolite (Asamayama, Shinano).

- 377. Pyroxene-andesite, Nantaisan Lava (Chuzenji, Shimotsuke).
- 378. Pyroxene-andesite, Yatsugatake Lava (Ochiai, Shinano).
- 379. Pyroxene-andesite (Komekami, Sagami).
- 380. Two-pyroxene-andesite (Tonosawa, Sagami).
- 381. Pyroxene-andesite, Amagi Lava (Jizodo, Izu).
- 382. Pyroxene-andesite (Togi, Noto).383. Mica-pyroxene-andesite, Daisen Lava (Daisen, Höki).
- 384. Pyroxene-andesite, Aso Lava (Tochiki, Higo).
- 385. Pyroxene-andesite, Aso Lava (Aso-Nakadake, Higo).
- 386. Pyroxene-andesite (Kagoshima, Satsuma).
- 387. Pyroxene-andesite, Otake Lava (Sakurajima, Satsuma).
- 388. Sanukite (Kokubu, Sanuki).
- 389. Enstatite-andesite (Choshi, Shimosa).
- 300. Boninite (Ogasawarajima, Bonin Islands).
- 391. Plagioclașe-basalt, Fuji Lava (Fujisan, Suruga).
- 392. Bomb (Fujisan, Suruga).
- 393. Ropy Lava (Tainaikuguri, Kai).
- 394. Phanerocrystalline Bomb, covered with Black Lava (Fujisan, Suruga).
- 395. Basalt (Gembudo, Tajima).
- 396. Basalt (Wadatoge, Shinano).
- 397. Basalt (Omurosan, Izu).
- 398a. Basalt (Daikonjima, Izumo). 398b. Basalt (Ogusovama, Iwami).

3. Fossils.

The following are some of the characteristic fossils hitherto found in Japan, and represent the Japanese types of fossils embedded in the strata, ranging from the Carboniferous to the Tertiary. They are arranged according to their geological ages with their corresponding localities:

I. Palwozoic.

CARBONIFEROUS.

- 399. Fusulina japonica Gumb. (Akasaka, Mipo).
- 400. Schwagerina Verbeeki Geinitz (Akasaka, Mino).
- 401. Lonsdaleia Akasakaensis Yabe (Akasaka, Mino).
- 402. Lithostrotion sp. (Tsukitate, Rikuzen).
- 403. Campophyllum sp. (Sennin, Rikuzen).
- 404. Productus sp. (Setamai, Rikuzen).

- 405. Bellerophon sp. (Akasaka, Mino).
- 406a. Chemnitzia sp. (Akasaka, Mino).
- 406b. Murchisonia sp. (Akasaka, Mino).
- 407. Trilobite (Phillipsia sp.) (Arisu, Rikuzen).

II. Mesozoic.

1. TRIASSIC.

- 408. Pseudomonotis ochotica (Keyserl.) Teller (Nariwa, Bitchu).
- 400. Daonella Kotoi E. v. Mojs. (Sakawa, Tosa).
- 410. Ceratites sakawanus E. v. Mojs. (Sakawa, Tosa).
- Arpadites (Anorcites) Gottschei E. v. Mojs (Inai, Rikuzen).
- 412. Dictyophyllum japonicum Yok, (Yamanoi, Nagato).
- 413. Baiera cf. paucipartela Nath. (Yamanoi, Nagato).
- 414. Asplenium Rosserti Presl. (Yamanoi, Nagato).

2. JURASSIC.

- 415. Cyclolites sp. (Higashinagano, Nagato).
- 416. Trigonia V-costata Lyc. (Hosoura, Rikuchu).
- 417. Harpoceras sp. (Nishi-nakayama, Nagato).
- 418. Perisphinctes sp. (Nagano, Echizen).
- 419. Onychiopsis elongata Geyl, (Yanagidani, Kaga).
- 420. Asplenium argutulum Hr. (Shima, Kaga).
- 421. Nilssonia nipponensis Yok. (Okamigo, Hida).
- 422. Podozamites Reinii Gcyl. (Okamigo, Hida).
- 423. Gingko digitata Brgt. (Okamigo, Hida).
- 424. Gingkodium Nathorsti Yok, (Shima, Kaga).
- 425. Pecopteris exilis Phill. (Shima, Kaga).
- 426. Dioonites Kotoei Yok. (Tani, Echizen).
- 427a. Asplenium whitbiense Brgt. (Ozo, Kaga).
- 427b. Nilssonia ozoana Yok. (Ozo, Kaga).
- 427c. Taneiopteris sp. (Ozo, Kaga).

3. CRETACEOUS.

- 428. Thannastraea sp. (Shiraishi, Tosa).
- 429. Pygurus asiaticus Yosh. (Torinosu, Tosa).
- Avicula Haradae Yok, (Kagahara, Kozuke).
 Trigonia pocilliformis Yok, (Kagahara, Kozuke).
- 432. Trigonia pocilliformis Yok. (Tanono, Awa, Shikoku).
- 433. Nerinea cf. Visurgis Romer (Sakawa, Tosa).
- 434. Desmoceras Damesi Jimbo (Abeshinai, Teshio).
- 435. Puzosia planulatiforme Jimbo (Abeshinai, Teshio).

- 436. Pachydiscus Haradai Jimbo (Abeshinai, Teshio).
- 437. Pachydiscus sp (Kagahara, Kozuke).
- 438. Tetragonites sphareonotus Jimbo (Yubarigawa, Ishikari).
- 430a. Gaudryceras limatum Yabe (Abeshinai, Teshio).
- 439b. Scaphites puerculus Jimbo (Abeshinai, Teshio).
- 440. Anisoceras Haradanum Yok. (Abeshinai, Teshio).
- 441. Anisoceras sp. (aff. A. indicum Forb.) (Kagahara, Kozuke).
- 442. Hamites vubarensis Yabe (Yubari, Ishikari).
- 443. Inoceramus Naumanni Yok. (Urakawa, Hidaka).
- 444. Pecopteris Gevleriana Nath (Sakawa, Tosa).
- 445. Zamiophyllum Buchianum Ett. (Sakawa, Tosa).

III. Cainozoic.

1. TERTIARY.

- 446. Nummulite javanus *Verbeck* (Ogasawarajima, Bonin Islands).
- 447. Schizaster nummuliticus Yosh (Ogasawarajima, Bonin Islands).
- 448. Linthia nipponica Yosh. (Miyata, Hitachi).
- 449. Dendrophyllia sp. (Kushimoto, Kii).
- 450. Pentacrinus Stem. (Kushimoto, Kii).
- 451. Rhynchonella psittacea Gmel. (Miyata, Hitachi).
- 452. Pecten laetus Gonid (Ose, Hitachi).
- 453. Mytilus grayanus Duuk (Nippaomanai, Hidaka).
- 454. Panopaea generosa Gould (Ioki, Tosa).
- 455. Conchocele disjuncta Gabb. (Morai, Ishikari).
- 456. Clavagella sp. (Tonohama, Tosa). 457. Vicarya callosa *Marteus* (Tsukiyoshi, Mino).
- 458. Brachyura sp. (Suenomatsuvama, Mutsu).
- 459. Oxyrhina sp. (Shimoda, Izu).
- 160. Leuciscus n. sp. (Yawataura, Iki).
- 161. Lithothamnium sp. (Ogasawarajima, Bonin Islands).
- 462. Myriophyllum n. sp. (Shiobara, Kozuke).
- 463. Carpiniphyllum pyramidale Gop. sp. japonicum Nath. (Asano, Shinano).
- 464. Trapa n. sp. (Ogoya, Kaga).
- 465. Acer palmatum Th. (Shiobara, Shimotsuke).

SPECIMENS OF LARGE SIZE.

- 406. Subcarboniferous Fossils in Limestone (Akasaka, Mino.).
- 467. Bellerophon sp. (Akasaka, Mino).

- 468. Pleurotomaria sp. (Akasaka, Mino).
- 469. Gymnites Watanabei E. v. Mojs. (Inai, Rikuzen).
- 470. Arpadites (Clinites) Naumanni E. v. Mojs (Inai, Rikuzen).
- 471. Dioonites Kotoci Yok.
 Anomozamites sp. { (Shima, Kaga).
- 472. Gingkodium Nathorsti Yok. (Shima, Kaga).
- 473. Pachydiscus Naumanni Yok. (Urakawa, Hidaka).
- 474a. Zamiophyllum Buchianum Ett. sp. (Ryoseki, Tosa).
- 474b. Nilssonia pterophylloides Yok. (Ryoseki, Tosa).
- 474c. Chladophlebis Nathorsti Yok (Ryoseki, Tosa).
- 475. Conchocele disjuncta Gabb, (Iruma, Iwashiro).
- 476. Cyprina sp. (Kosaji, Omi).
- 477. Stegodon clifti Fatc. & Cau. (Shodo, Sanuki).
- 478. Elephas primigenius Blum. (Hishiike, Mikawa).
- 479. Sus japonicus Yosh. (Ryuge, Ugo).
 - 4. Whetstones, Porcelain Clays and Phosphätes.

(A) WHETSTONES,

The chief whetstones now in common use in Japan are collected and exhibited here. The collection comprises several kinds of whetstones of various textures and of different characters, being of sedimentary or eruptive origin. Among them, those of liparites and their tuffs; for instance, those like the Nagura-do, Jokenjido, etc., are rather remarkable, and are considered to fit for exportation to foreign countries.

- 480. Adinole Slate, Narutakido (Umegahata, Yamashiro).
- 481. Adinole Slate, Otsukido (Umegahata, Yamashiro).
- 482. Striped Adinole Slate, Inoshirodo (Umegahata, Yama-shiro).
- 483. Adinole Slate, Kaburikodo (Umegahata, Yamashiro).
- 484. Adinole Slate, Kizuyamado (Udano, Yamashiro).
- 485. Adinole Slate, Shobudo (Umegahata, Yamashiro).
- 486. Admole Slate, Okudono-Suitado (Umegahata, Yamashiro).
- 487. Clay Slate, Yagi-Izarido (Yagi, Tamba).
- 488. Adinole Slate, Okudonodo (Umegahata, Yamashiro).
- 489. Adinole Slate, Yagi-Nagaodo (Yagi, Tamba).
- 490. Clay Slate, Ouchido (Ouchi, Tamba).
- 401. Metamorphosed Clay Slate, Sukegawado (Sukegawa, Hitachi).
- 492. Clay Slate, Uchigumorido (Saga, Yamashiro).

- 493. Clay Slate, Acto (Kozaki, Tamba).
- 494. Mottled Slate, Ashiyado (Ouchi, Tamba).
- 495. Liparite Tuff, Yellow Nagurado (Onomura, Mikawa).
- 496. Liparite Tuff, White Nagurado (Onomura, Mikawa).
- 497. Finely Spotted Slate, Yagi-Matsumotodo (Yagi, Tamba).
- 498. Metamorphosed Clay Slate, Mearado (Ouchi, Tamba).
- 499. Metamorphosed Clay Slate, Akado (Igura, Tamba).
- 500. Metamorphosed Slate, Akado (Igura, Tamba).
- 501. Spotted Slate, Akado (Nishinaka, Hitachi).
- 502. Metamorphosed Slate, Kasagido (Kiya, Yamashiro).
- 503. Spotted Slate, Aoto (Kozaki, Tamba).
- 504. Spotted Sandy Slate, Mitanido (Mitani, Shimotsuke).
- 505. Metamorphosed Spotted Slate, Medoshido (Kozaki, Tamba).
- 506. Metamorphosed Spotted Slate, Saekido (Igura, Tamba).
- 507. Spotted Slate, Monzendo (Naka, Yamashiro).
- 508. Rhvolite, Ivodo (Toyama, Ivo).
- 509. Rhyolite, Iyodo (Karakawa, Iyo).
- 510. Rhyolite, Aka-Amakusado (Oyano, Higo).
- 511. Rhvoiite, Kozuke-Torado (Tozawa, Kozuke).
- 512. Liparite. Yukawado (Yukawa, Kii).
- 513. Liparite, Iyodo (Karakawa, Iyo).
- 514. Liparite, Shiro-Amakusado (Oyano, Higo).
- 515. Liparite, Iyodo (Toyama, Iyo).
- 516. Liparite, Iyodo (Toyoma, Iyo).
- 517. Dacite, Shirodo (Aizu, Iwashiro).
- 518. Liparite, Kozuke-Shirodo (Tosawa, Kozuke).
- 519. Dacite, Kozukedo (Tosawa, Kosuke).
- 520. Andesite, Kazama-Nagurado (Kazama, Uzen).
- 521. Andesite. Tajimado (Moroyose, Tajima).
- 522. Hornblende-andesite, White Jokenjido (Jichu, Echizen).
- 523. Hornblende andesite, Jokenjido (Jichu, Echizen).
- 524. Fine-grained Sandstone, Hon-Omurado (Irino, Iwashiro).
- 525. Fine-grained Sandstone, Tosado (Shishikuiura, Awa, Shi-koku).
- 526. Fine-grained Sandstone, Omurado (Katada, Kii).
- 527. Banded Sandstone, Chamikodo (Katada, Kii).
- 528. Fine-grained Sandstone, Hibido (Matsushima, Hizen).
- 529. Fine-grained Sandstone, Choshido (Choshi, Shimosa).
- 530. Fine-grained Sandstone, Choshido (Choshi, Shimosa).

- Fine-grained Sandstone, Shiro-Matsudo (Tsuzurabuchi, Kii).
- 532. Fine-grained Sandstone, Gotodo (Hirashima, Hizen).
- Medium-grained Sandstone, Hirashimado (Hirashima, Hizen).
- 534. Medium-grained Sandstone, Sasaguchido (Kosasa, Hizen).
- Medium-grained Sandstone, Matsushimado (Matsushima, Hizen).
- Medium-grained Siliceous Sandstone, Ishigayado (Katada, Kii).
- Medium-grained Siliceons Sandstone, Jojirodo (Saino, Kii).
- 538. Mcdium-grained Siliceous Sandstone, Shiro-Eguchido (Eguchi, Hizen).

(B) PORCELAIN CLAYS, ETC.

This is a collection of specimens of raw and prepared materials for the bodies of the chief porcelains and stone-wares of Japan. The result of the analysis of each material is given, in most cases, on the label accompanying it, and the proportions of materials, employed in the mixture for the bisque, are respectively noticed under its proper head.

- I, Materials for the Body of Arita Porcelain (Arita-yaki).
 - 539. Decomposed Liparite, Izumiyama-ishi (Arita, Hizen).
 - 540. Decomposed Liparite, Amakusa-ishi (Amakusa, Higo).
 - 542. Elutriated Paste for the Bisque.

- 2. Materials for the body of Kyoto Porcelain (Kiyomizu-yaki).
 - 543. Decomposed Liparite, Takahama-ishi (Amakusa, Higo).
 - 544. Pulverized and Washed, Takahama-ishi (Amakusa, Higo).
 - 545. Decomposed Granite, Tokiguchi-Gairome (Tokiguchi, Mino).
 - Pulverized and Washed, Tokiguchi-Gairome (Tokiguchi, Mino).
 - 547. Decomposed Granite, Takao-Gairome (Takao, Yamashiro).
 - 548. Pulverized and Washed, Takao-Gairome (Takao, Yama-shiro).
 - 549. Quartz, Sanuki-Keiseki (Hiroshima, Sanuki).
 - 550. Feldspar, Choseki (Mikumo, Omi).

- 551. Pulverized and Washed, Choseki (Mikumo, Omi).
- Re-deposited Clay from Decomposed Granite, Shigarakizuchi (Kinose, Omi).
- 533. Pulverized and Washed, Shigaraki-zuchi (Kinose, Omi).
- 554. Elutriated Paste for the Bisque.

consisting of (in weight) 7 parts of Takahama-ishi.
1 part of Tokiguchi-gairome.
1 part of Choseki.
1 part of Keiseki.

- 3. Materials for the Body of Awada Stone-ware (Awada-yaki).
 - 555. Agalmatolite, Roseki (Mitsuishi, Bizen).
 - 556. Pulverized and Washed, Roseki (Mitsuishi, Bizen).
 - Decomposed Quartz-porphyry, Rokujizo-Mazetsuchi (Rokujizo, Omi).
 - Pulverized and Washed, Rokujizo-Mazetsuchi (Rokujizo-Omi).
 - 559. Clay from Decomposed Granite, Shigaraki-zuchi (Kinose, Omi).
 - 560. Kaolin, Shiroe-zuchi (Shimoda, Omi).
 - 561. Clay from Decomposed Granite, Nendo (Shinohara, Omi).
 - 562. Pulverized and Washed, Nendo (Shinohara, Omi).
 - 563. Decomposed Aplite, Yada-Mazetsuchi (Yada, Yamato).
 - 564. Pulverized and Washed, Yada-Mazetsuchi (Yada, Yamato).
 - Carbonaceous Clay, Imayama-Kibushi (Imayama, Yama-shiro).
 - 566. Pulverized, Imayama-Kibushi (Imayama, Yamashiro).
 - Slightly Carbonaceous Clay, Asamiya-Kibushi (Asamiya, Omi).
 - 568. Pulverized and Washed, Asamiya-Kibushi (Asamiya, Omi).
 - 569. Elutriated Paste for the Bisque.

consisting of { 10 vols. of Koscki. 10 vols. of Mazetsuchi. 15 vols. of Shigarakizuchi.

- 4. Materials for the Body of Satuma Stone-ware (Satsuma-yaki).
 - Decomposed Andesite, Kaolin, Kirishima-tsuchi (Kirishimavama, Osumi).
 - 571. Decomposed Andesite, Bara-tsuchi (Higashikata, Satsuma).
 - 572. Siliceous Tuff, Kaseda-zuna (Kaseda, Satsuma).
 - 573. Elutriated Paste for the Bisque,

consisting of 3 vols. of Kirishima-tsuchi.
18 vols. of Bara-tsuchi.
13 vols. of Kaseda-zuna.

- 5. Materials for the Body of Awaji Stone-ware (Awaji-yaki).
 - 574. Re-deposited Clay from Decomposed Granite, Ono-tsuchi (Ono, Awaji).
 - 575. Elutriated Paste for the Bisque, consisting of Ono-tsuchi.
- 6. Materials for the Body of Kaga Porcelain (Kutani-yaki).
 - 576. Decomposed Liparite, Hanasaka-tsuchi (Hanasaka, Kaga).
 - 577. Washed, Hanasaka-tsuchi (Hanasaka, Kaga).
 - 578. Decomposed Liparite, Gokokuji-tsuchi (Gokokuji, Kaga).
 - 579. Washed Gokokuji-tsuchi (Gokokuji, Kaga).
 - 580. Decomposed Liparite, Nabetani-ishi (Nabetani, Kaga).
 - 581. Washed Nabetani-ishi (Nabetani, Kaga).
 - 582. Elutriated Paste for the Bisque,

consisting of $\begin{cases} 5 \text{ vols. of Hanasaka-tsuchi.} \\ 5 \text{ vols. of Gokokuji-tsuchi.} \\ 3 \text{ vols. of Nabetani-ishi.} \end{cases}$

- 7. Materials for the Body of Aizu Porcelain (Aizu-yaki).
 - 583. Decomposed Liparite, Okubo-ishi (Hongo, Iwashiro).
 - 584. Pulverized Okubo-ishi (Hongo, Iwashiro).
 - 585. Decomposed Liparite, Kabuto-ishi (Oki, Iwashiro).
 - 586; Pulverized Kabuto-ishi (Oki, Iwashiro).
 - 587. Decomposed Liparite, Jari-ishi (Hongo, Iwashiro).
 - 588. Pulverized Jari-ishi (Hongo, Iwashiro).
 - 589. Elutriated Paste for the Bisque,

consisting of { 3 vols. of Okubo-ishi. 3 vols. of Jari-ishi. 2 vols. of Kabuto-ishi.

- 8. Materials for the Body of Seto Porcelain (Seto-yaki).
 - 590. Decomposed Granite, Gairome (Yamaguchi, Owari).
 - 591. Pulverized and Washed Gairome (Yamaguchi, Owari).
 - 592. Feldspar, Choseki (Takaoka, Mikawa).
 - 593. Washed Choseki (Takaoka, Mikawa).
 - 594. Quartz mixed with Feldspar, Keiseki (Sarunage, Mikawa).
 - 595. Pulverized Keiseki (Sarunage, Mikawa).
 - 596. Elutriated Paste for the Bisque,

consisting of { 10 vols. of Gairome. 5 vols. of Choseki. 2 vols. of Keiseki.

- 9. Materials for the Body of Tajimi Porcelain (Tajimi-yaki).
 - 597. Decomposed Granite, Tokiguchi-Gairone (Tokiguchi. Mino).
 - 598. Washed Tokiguchi-Gairome (Tokiguchi, Mino).
 - 599. Feldspar, Choseki (Ohira, Mikawa).
 - 600. Washed Choseki (Ohira, Mikawa).
 - 601., Quartz, Keiseki (Tsumagi, Mino).
 - 602. Washed Keiseki (Tsumagi, Mino).
 - 603. Elutriated Paste for the Bisque,

(c) PHOSPHATES.

Of late, phosphates have come to be known to occur in many places in Japan. The specimens here exhibited are principal types of them, and they represent various forms of phosphates hitherto found in Japan. Percentage of P₂ O contained in each specimen is described on the label attached to it.

- 604. Nodule Phosphate (Urakawa, Hidaka).
- 605. Nodule Phosphate (Yamamoto, Mutsu).
- 606. Nodule Phosphate (Niageba, Ugo).
- 607. Nodule Phosphate (Sochi, Echigo).
- Nodule Phosphate (Sochi, Echigo).
 Nodule Phosphate (Nakanosako, Hyuga).
- 610. Rock Phosphate (Sakegawa, Uzen).
- 611. Rock Phosphate (Arayama, Shinano).
- 612. Rock Phosphate (Toba, Shima)...
- 613. Soft Phosphate (Hiuchidani, Noto).
- 614. Soft Phosphate (Kita-nakasato, Hitachi). 615. Guano Phosphate (Minami-Torishima, Marcus Island).
- 616. Guano Phosphate (Minami-Torishima, Marcus Island).
- 617. Guano Phosphate (Minami-Torishima, Marcus Island).

5. CRUDE PETROLEUM.

Of Japanese crude petroleum, there are many varieties, belonging to the naphtha series, and found in Tertiary strata. The specimens here exhibited are types collected from the principal oil fields in the Empire. The results of fractional distillation are respectively shown on the accompanying labels.

- 618. Crude Petroleum (Izumi, Ugo).
- 619. Crude Petroleum (Oguni, Ugo).
- 620. Crude Petroleum (Niitsu, Echigo).
- 621. Crude Petroleum (Amaze, Echigo).
- 622. Crude Petroleum (Nagamine, Echigo).
- 623. Crude Petroleum (Aburaden, Echigo).
- 624. Crude Petroleum (Miyagawa, Echigo).
- 625. Crude Petroleum (Katsubozawa, Echigo).
- 626. Crude Petroleum (Hire, Echigo).
- 627. Crude Petroleum (Uraze, Echigo).
- 628. Crude Petroleum (Takezawa, Echigo).
- 629. Crude Petroleum (Ojiva, Echigo).
- 630. Crude Petroleum (Hara, Echigo).
- 631. Crude Petroleum (Hiyama, Echigo).
- 632. Crude Petroleum (Sagara, Totomi).

Soils.

The specimens of soils with the products of their mechanical analyses, here exhibited, include most of the important ones constituting the arable land of Japan. They are arranged according to their localities, as follows:

- 633. Clay, Young Quaternary (Ima, Bizen).
- 634. Humus Clay, Volcanic Detritus (Kawadai, Uzen).
- 635. Humus Clay, Old Quaternary (Sakai, Musashi)...
- 636. Loamy Clay, Young Quaternary (Nagaoka, Echigo).
- Schottery Clay, Chlorite-schist (Yamashirodani, Awa, Shikoku).
- 638. Loam, Tertiary Tuff (Kakegawa, Totomi).
- 639. Loam, Old Quaternary (Tokachi, Hokkaido).
- 640. Sandy Loam, Lapilli (Gotemba, Suruga).
- 641. Schottery Loam, Palaeozoic Pyroxenite (Yamadahara, Kii).
- 642. Schottery Loam, Palaeozoic Slate (Uji, Yamashiro).
- 643. Schottery Loam, Mesozoic Shale (Amakusa, Higo).
- 644. Loamy Sand, Granite (Ogyu, Mikawa).
- 645. Loamy Sand, Granite Gneiss (Nihommatsu, Iwashiro).
- 646. Loamy Sand, Young Quaternary (Kurihashi, Musashi).
- 647. Loamy Schotter, Mesozoic Sandstone (Ono, Tosa).

- 19. Page 255, column 2, line 37, for Numatzuta, read Namazuta.
- 20. Page 256. column 1, line 16, strike out mine.
- 21. Ibid, line 36, for andestite, read andesite.
- 22. Ibid, column 2, line 11, for abdesite, read andesite.
- 23. Ibid, line 9, before Argentiferous, add Brecciated andesite with.
- 24. Ibid, line 14, for Argentine, read Argentite.
- 25. Ibid, lines 24, 26, 28, 29, for Sump, read Lump.
- 26. Page 257, column 1, after line 4, insert Iridosnin.
- 27. Ibid, strike out lines 10 and 11.
- 28. Ibid, line 36, for Iridosmin Stibnite, read Stibnite.
- 20. Ibid, column 2, line 2, for Liporite, read Liparite.

GROUP 117.

- 1. Page 257, column 2, after line 31, insert 2a, Fujita & Co.
- 2. Page 258, column 1, line 4, for silver work, read silver mine.
- 3. Ibid, strike out lines 7, 8 and 9.
- 4. Ibid, column 2, line 36, for Rock drill in execution, read Layer rock drill in execution, Ashio Copper Mine.
- 5. Ibid, line 37, strike out Ashio Copper Mine.
- 6. Ibid, after line 21, insert:
 - 7a. Imperial Steel Works-photograph.
 - 7b. Imperial Geological Survey, Tokyo-

Reconnaissance topographical and geological maps (scale 1:400,000):

Division I.

Division II.

Division III.

Division IV.

Division V.

Special topographical and geological maps (scale 1:200,-000):

Section Kamaishi.

Section Akita.

Section Honio.

Section Sakata.

Section Fukushima.

Section Fukui.

Section Miyazu.

Section Hieizan,

Section Osaka.

Section Wakayama.

Section Ikuno.

Section Tokushima.

Section Oki.

Section Okayama.

Section Marugame.

Section Kochi.

Section Uwajima.

Section Oita.

Section Mivazaki.

Section Fukuoka.

Section Saga.

Section Kumamoto.

Section Kagoshima.

Section Koshikijima.

Topographical map of the Japanese Empire (scale 1:1,-000,000).

Geological map of the Japanese Empire (scale 1:1,-000,000).

General map showing orography of the Japanese Empire and depths of the surrounding ocean bottoms (scale 1:2,500,000).

Agronomical maps (scale 1:100,000; in Japanese and English):

Musashi province (northern part).

Sagami province and the southern part of Musashi province.

Owari and Mikawa provinces.

Kawachi and Izumi provinces, and the eastern part of Settsu province.

General agronomical map of the Japanese Empire (scale 1:500,000; in Japanese and English) in two parts, with the table showing distribution of the cultivable and cultivated lands.

General map of known oil and gas field of the Japanese Empire (scale 1:000,000).

Geological and topographical maps of the oil field of Japan (scale 1:20,000; in Japanese and English):

Section I, Higashiyama oil field, Echigo (with profiles).

Section II, The southern part of Minami-Akitagori, Ugo (with profiles).

Section III, Nishiyama oil field, Echigo (with profiles, detailed maps, etc.).

Reliefs of the Volcano Bandai, before and after its cruption of 1886 (horizontal scale 1:50,000; vertical scale 1:25,000), with the reference map (scale 1:50,000).

- 7. Ibid, after line 26, insert Photographs.
- 8. Ibid, line 28, for rit, read pit.
- Page 260, column 1, lines 4, 6 and 8, for Geographical, read Geological.

GROUP 118.

- 1. Page 260, column 1, line 27, strike out ingot.
- 2. Page 260, column 2, strike out line 19.
- Ibid, line 32, for Furokura copper mine, read Furukawa copper works.
- 4. Ibid, lines 34 and 35, for Furokura copper mine, read Furukawa copper works
- 5. Ibid, strike out line 36.
- 6. Ibid, line 30, for mille, read mill.
- 7. Page 261, column 1, line 1, for electrotypic, read electrolytic.
- 8. Ibid, after line 4, insert:
 - B. W. G. 3-0 electrolytic wire.
- B. W. G. 2-o electrolytic wire.
 - B. W. G. 1-o electrolytic wire.
 - 9. Page 262, column 1, line 11, for Ammonium, read Aluminium.
 - 10. Ibid, lines 14-17, for Iriboku, read Irobaku.
- 11. Ibid, line 40. for Gold thread, 13, read Gold thread, D No. 13.
- 12. Ibid, line 41, for Gold thread, 14, read Gold thread, D No. 14.
- 13. Ibid, line 42, for Gold thread, 16, read Gold thread, D No. 16.
- 14. Ibid, column 2, line 3, for Gold thread, 12, read Gold thread, E No. 12.

- 15. Ibid, line 4, for Gold thread, 13, read Gold thread, E No. 13.
- Page 263, column 1, line 7, for argentiferous ingot, read argentiferous copper ingot.
- 17. Ibid, lines 16 and 17, strike out and silver of.

GROUP 119.

Page 263, after line 19, insert:

Explanatory text to the special geological map of:

Section Kamaishi (in Japanese).

Section Akita (in Japanese).

Section Honjo (in Japanese).

Section Sakata (in Japanese).

Section Fukushima (in Japanese).

Section Fukuji (in Japanese).

Section Miyazu (in Japanese).

Section Hieizan (in Japanese).

Section Osaka (in Japanese).

Section Wakayama (in Japanese).

Section Ikuno (in Japanese)

Section Tokushima (in Japanese).

Section Oki (in Japanese).

Section Okayama (in Japanese).

Section Marugame (in Japanese).

Section Kochi (in Japanese).

Section Uwajima (in Japanese).

Section Oita (in Japanese).

Section Miyazaki (in Japanese).

Section Fukuoka (in Japanese).

Section Saga (in Japanese). Section Kumamoto (in Japanese).

Section Kumamoto (in Japanese). Section Kagoshima (in Japanese).

Section Kagoshima (in Japanese).

Explanatory text to the agronomical map of the:

Musashi province, northern part (in Japanese).

Sagami province and the southern part of Musashi province (in Japanese).

Owari and Mikawa provinces (in Japanese).

Kawachi and Izumi provinces, and the eastern part of Settsu province (in Japanese). Explanatory text to the geological and topographical map of the oil field of Japan:

Section I, Higashiyama oil field, Echigo (in Japanese). Section II, The southern part of Minami-Akitagori, Ugo (in Japanese).

Bulletins of the Imperial Geological Survey of Japan, Vols. IX-XVI (in Japanese).

Report on the geology of Ikuno Mine, with maps (in Japanese).

Outlines of the geology of Japan (descriptive text to accompany the geological map of the Japanese Empire on the scale 1:1,000,000).

Beiträge zur Kenntniss der japanischen Landwirthschaft, Von Prof. Dr. M. Fesca.

I. Allgemeiner Theil.

II. Specieller Theil.

Photographic portraits of the personnel of the Imperial Geological Survey of Japan.

DEPARTMENT OF FISH AND GAME.

GROUP 121.

- 1. Page 273, column 1, lines 16-18, read Furs of ermines.
- Ibid, lines 24-30, read Furs of sea otter, seal and dyed furs of same: furs of hair-seal, ermine, yellow ermine, red fox, white fox, badger, otter, and dyed fur of the same; weasel furs, natural and dyed.

GROUP 122.

- 3. Ibid, column 2, line 16, read Mackerel.
- 4. Ibid, strike out line 17.
- 5. Ibid, after line 19, insert Chi-dai.
- 6. Ibid, line 21, read Crabs, stuffed.
- 7. Ibid, strike out lines 29 and 30.
- Page 274, column 1, after line 6, insert Plan of Imperial Fisheries Institute.
- 9. Ibid, line 12, read dog salmon.

- 10. Ibid, strike out line 16.
- 11. Ibid, strike out lines 20 and 21.
- 12. Ibid, lines 20 and 30, for Chalcogrammes, read Chalcogrammus.
- 13. Ibid, line 37, read silk dip nets and creacs.
- 14. Ibid, line 38, for Jisuke, read Jusuke.

GROUP 123.

- 15. Page 275, column 1, line 28, for Tetsuji, read Katsuaki.
- 16. Ibid, strike out exhibit No 21.
- Ibid, column 2, after line 2, add the following exhibit: Kiyomoto, Kanekichi, Osaka— Cod liver oil.
- 18. Ibid, line 5, read Top shells.
- 19. Ibid, after line 9, insert Pearl buttons.
- 20. Ibid, strike out lines 31-33.
- 21. Page 276, column 1, strike out exhibit No. 33.
- 22. Ibid, line 33, read Funori.
- 23. Ibid, line 38, for Suga, read Suzea.
- Ibid, column 2, line 5, read Canned Mackerel, Sardines and Sardines in Oil.
- Ibid, from line 38 to the end of this group, represent the exhibits of Yokohama Fish Oil Co., Kanagawa-ken.

DEPARTMENT OF SOCIAL ECONOMY.

GROUP 139.

Page 279, the details of the exhibition of the Japan Red Cross Society as follows:

- 1. Ambulance appliances.
- Table showing the development of Japan Red Cross Society.
- Table showing the growth of membership, its annual subscriptions and assets.
- 4. Table showing the number of the staff.
- 5. Table showing the yearly number of membership.

- 6. Hanging stretcher.
- Picture of Her Imperial Majesty, the Empress of Japan, and eight other pictures.
- 8. Medals of membership.
- 9. Slides showing ambulance operations.
- 10. Reports of the R. C. S. on the Japan-China war.
- 11. Uniforms of the relief staff.

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